THE LIBRARY AS A COMMUNITY INFORMATION CENTER

Allerton Park Institute

ALLERTON PARK INSTITUTE

Number Four

THE LIBRARY AS A COMMUNITY INFORMATION CENTER

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FOREWORD

The papers herewith presented were given at the Institute on the Library as a Community Information Center held at Allerton House, Monticello, Illinois on September 29-October 2, 1957, under the auspices of the University of Illinois Library School in cooperation with the University Extension Division. This was the fourth in a series of institutes, the first of which was the Institute on School Library Supervision (October,1954), the second the Institute on Developing the Library's Personnel Program (September, 1955), and the third, the Institute on The Nature and Development of the Library Collection (November, 1956).

Like its predecessors this institute was planned to appeal to the needs of librarians in small and medium-sized public libraries and to this group, college librarians have been added. However, it seems obvious that meeting the informational needs of such libraries involves a large measure of interlibrary cooperation. Therefore, the subject has been approached not merely from the standpoint of the local development of a reference service but more particularly from that of the cooperative use of resources and trained personnel which should result from a new grouping of small libraries into larger service units.

The plans of the new Reference Division of the American Library Association to stimulate the formation of city and regional resources and to aid each other in the use of materials for the benefit of patrons when fully carried out, will also contribute to the development of reference service on a regional, state, and national scale.

The ideas discussed above underlie several of the papers herein presented. Another group of papers which may need a word of introduction has to do with the skills of other specialists which the reference librarian can profitably apply to her work, particularly those of the cost accountant in defense of his budget requests; of the personnel manager in the training of his staff; and of the public relations counsel in making known his services.

The program of the institute was planned by a committee of the Library School faculty composed of Frances B. Jenkins, Alice Lohrer, C. Walter Stone, Harold Lancour (ex-officio), and Rose B. Phelps, Chairman. The committee wishes to express its sincere appreciation to Byron E. Fulk and to the staff of the University Extension Division for their aid and advice on all the financial and business details of the institute and to the members of the faculty of the Library School for their interest and assistance. Finally we are greatly indebted to the speakers at the institute for the preparation of their excellent papers and to the registrants for their interest and discussion of them. As in the past, we extend our thanks to the staff of Allerton House and of Robert Allerton Park for their willing and courteous service. Finally, let us all thank Providence for the perfect beauty of those four autumn days we spent at Allerton Park for which no mortal can take any credit whatsoever.

ROSE B. PHELPS
JANET PHILLIPS
Editors

Urbana, Illinois
April 15, 1959

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THE SPIRIT OF REFERENCE SERVICE

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It is practically a truism that modern library philosophy, especially in America, emphasizes the use of materials rather than their preservation. There is recognition, of course, that rare and valuable books must be given special protection and used under regulations guaranteeing their safety. To apply the same rules to the great mass of current publishing, however, would be a severe handicap to our concepts of library service.

Though the point may appear so obvious that it is hardly worth stating, perhaps because we have become thoroughly accustomed to it, this feature of American librarianship is in striking contrast to prevailing practices in many other countries. As a result of our stress on public service, circulation, reference, and research departments are highly developed in nearly all types of libraries. It is revealing to compare this approach with the attitude of, say, most of the Japanese, Mexican, and Turkish librarians, with whom this writer has worked in recent years. Traditionally, these librarians believe that professional librarianship stops with cataloging and classification. They have considered that their job was done when they acquired the books and placed them on the shelves. If anyone wants to use the books, there they are.

In some instances, in fact, the librarians have taken an even more extreme stand. They thought that there was something menial about giving reference service to a library user. To do so, in their view, would be behaving like servants, and therefore would be beneath their dignity. If a person comes to the library to look up information, the books are available. Let him use them himself to find what he wants.

Actually, the modern idea of reference work in a library is a comparatively recent development, even in the United States. It has come, in part, because of the enormous growth of libraries--growth both in the size of individual institutions and in their varied nature. Reference assistance was perhaps less necessary in the older libraries with their small collec-

tions and relatively few reference books. Reference work exists because it is not possible to arrange books so mechanically, so perfectly, as to do away with the need for personal service. The reference librarian is the middleman between the reader and the right book.

It has been estimated that fully 95 per cent of a library's users do not know exactly what they want or where it can be found when they enter a library. Without the aid of the reference librarian they would leave the library in as befuddled condition as when they came into it.

Someone divided the people who come to the reference librarian for help into three categories:

(1) The select few who know just what they want, clearly state what they are looking for, and expect you to find it for them.

(2) The people who expect nothing of you, apologize for disturbing you, and break into a fever of gratitude over the slightest assistance.

(3) The people who expect the reference librarian to do all their work for them.

The person who drew up this classification may have viewed the world with a jaundiced eye, but his descriptions are apt.

One of the hardest jobs frequently is to find out just what the reader wants. As one exasperated reference librarian commented, "They will choke to death and die with the secret in them rather than tell you what they want." Often the inquirer will begin miles away and only gradually work around to what he actually has in mind. He will start out perhaps asking for a world atlas when what he really wants to know is how to get from Urbana to Monticello, Illinois. Some amusing examples were cited by Raymund F. Wood of Fresno State College.[1] One inquirer wanted to know, "Do you have a complete list of firms in the U.S. publishing music?" The reference librarian massed an array of books that included Ulrich, Ayres, Mudge, The Writers' Market, the Faxon Guide to Periodicals, and the Cumulative Book Index, and was about to bring out the back files of some of the leading music magazines when he was told that all that was wanted was the street address of G. Schirmer, Inc., in New York.

On another occasion the question was "Do you have any information on insects?" Statistics on the number of different kinds of insects in the world vary from about 700,000 to 6,000,000. Eventually it came out that the information really

wanted was just what the boll weevil does to destroy the cotton crop.

Still another query that was difficult to pinpoint came from a young man who asked if the library possessed information about the state university medical school. Accustomed to answering questions about the relative merits of the various schools, the reference librarian tried to ascertain whether he wished to find out about its academic standing or possibly its faculty-student ratio, or perhaps the tuition fees. No, none of these would do. As a matter of fact all that was really wanted was the telephone number of the student nurses' dormitory close by.

One of the unresolvable questions often discussed by reference librarians is how much help to give readers. The usual answer is: it depends. The amount of time will depend on the question, on the reader, and on his need or purpose. The librarian must be able to distinguish between the serious and the trivial inquiry, between the reasonable and the unreasonable, the possible and the impossible. In the case of school and college libraries, the reference librarian has to learn to stop with suggesting sources and techniques to students, and instructing them in the use of indexes and other reference tools, while avoiding doing the work the student has been assigned to do. On the other side, a considerable degree of leading-by-the-hand may be necessary for public library patrons without experience in libraries or in the use of books. Likewise, the busy school or college administrator, the trained scholar, and the mature teacher may merit more time and assistance than the average person is likely to require. Every reader is entitled to a certain minimum of courteous help and attention. After that it must be left to the judgement and common sense of the reference librarian.

The constant aim of the reference librarian is, or should be, to help readers to help themselves. Usually it is sufficient to refer readers searching for particular facts to the proper or probable sources of information, and to give further aid only when it seems to be needed.

Incidentally, there is a certain type of reference librarian who annoys everyone with whom he or she comes into contact. These are sometimes known as "gushers." They are always inclined to overdo. They overwhelm a reader with material far beyond his need, not knowing when to stop. They bring more and more, when a single book or article would have been completely adequate. Thousands of hours are wasted by reference librarians who do not realize when enough is enough.

The good reference librarian is always careful to see that help given a reader is not wasted by being misunderstood. The best bit of reference work may be lost unless a string is kept on the reader. Make certain that he comes back if the material provided is unsatisfactory.

Another important point to remember is that the reference librarian should never be so individualistic as not to want to pass on a difficult question to someone better qualified to answer it, to someone who knows more about the subject, such as a specialist. In a sense, it is well to think of every member of the library organization as a member of the reference staff. The acquisition librarian, the cataloger, the classifier, the documents librarian, and others may possess special information, have unusual avocations, or be otherwise better prepared to answer a given reference query than the regular reference staff. Even beyond this, one should take advantage of the human resources of the whole institution and community. In a college or university one can often obtain valuable assistance from members of the faculty, while in any sizable community the variety of professions and trades represented will constitute an important resource upon which to draw. Find out who knows and what.

And in this connection stress should be placed on the reference department's relationship to the institution or community which it is designed to serve. In the public library, the reference librarian must be community minded, know what projects are being sponsored by service clubs, the programs of the women's clubs, the business and industrial activities of the area, the cultural interests. Similarly in the school, the college, and the university the reference librarian needs to be familiar with the curriculum, with the methods of instruction, and the general objectives of the institution. The closest possible working relations with the faculty are essential, for in this way only can the reference staff work most effectively with students.

Cordial community relations also, of course, include cooperation with other libraries. Their collections and personnel frequently may supplement those of one's own organization. The knowledge and resources of special libraries, the state library, and like institutions may be utilized through telephone inquiries, correspondence, interlibrary loans, and otherwise. Since cooperation is a two-way street, it is understood that reciprocal assistance will be given when requested.

In further reference to the amount of aid to furnish individual readers, one of the reference librarian's important respon-

sibilities is to train the public in the use of the library's collections. Especially in the case of school and college libraries, the reference librarian is dealing with a captive audience, and there will be many opportunities to teach students, and perhaps even faculty members, how to use standard reference books and other tools, thereby making them more self-reliant and relieving the librarian of numerous routine questions. For the past several years, at the Chicago Undergraduate Division of the University of Illinois, a program for giving every student instruction in the use of the library has been carried on. The dividends are high. The number of reference questions has declined as students have learned how to help themselves, and the questions asked are on a higher level. Furthermore, as these students have come on to Urbana for upper division work, they have shown the benefit of their training and are more proficient in their use of libraries. Admittedly, such instruction as is provided by the Chicago division is demanding of a great deal of staff time and energy. Most libraries are too short staffed for this type of program. In general, however, it can be said that any teaching in the use of books and libraries which can be done by reference librarians will in the long run make their work less burdensome, more interesting, and more rewarding.

Many attempts have been made to define reference work and to describe the ideal reference librarian. A good description was given by W. W. Bishop over forty years ago:

> The 'reference librarian' [is] the man who is compelled to be all things to all men, who counting nothing and no one trivial, spends his days opening up to the miscellaneous public the stores of the library's books... He sends the interesting inquiry on to the specialist; ... he greets generations of students...here he averts a difficulty, there he smooths down an irate reader with too often a just grievance; he is an interpreter, revealing to inquirers what the library has; he is a lubricant, making the wheels run noiselessly and well...At his best scholars use him, like him, thank him. At his lowest ebb no one considers him save as a useful part of the machinery. This is the theory of his work--service, quiet, self-effacing, but not passive or unheeding. To make books useful, and more used, --this is his aim.[2]

Some mellow, mature reflections on the qualities that go to make a top-notch reference librarian were more recently discussed by David Mearns of the Library of Congress, a great reference librarian. [3]

Mr. Mearns lists seven attributes which he considers to be the essential elements of reference librarianship. Summarized briefly they are: (1) First is literacy; as defined, this means not only the ability to read, but to fully comprehend what one has read, plus skill in writing, and the ability to transmit the information found so skillfully that there is no possibility of misunderstanding. (2) Imagination or resourcefulness, by which is meant the willingness to play hunches, to explore even improbable leads, and in general to adopt a flexible, open minded approach to every problem. (3) Enthusiasm, that is the reference librarian must enjoy his work, and be interested in and sympathetic to readers and their queries. (4) The fourth ingredient is persistence. If one is too easily discouraged, dismayed, or disheartened by elusive solutions to difficult questions, the answers will probably never be found.(5) The fifth requirement is called "a sense of media." The informational sources which a reference librarian needs to use are of wide scope and are of increasing variety. Consequently, he should be aware that his best source may not be a book, but may be a newspaper, a periodical, a manuscript, a government document, a map, or a print. (6) The sixth factor is humility, a little harder to define in this context. In essence, it means to avoid cocksureness, to refrain from glibness, to overcome intellectual snobbery, and to treat every inquiry as seriously as does the person who makes it. (7) Finally, the seventh element is love for a people's service. "Libraries exist only to render it," states Mr. Mearns, "and reference librarians can justify their own existence only to the degree that they are competent and rejoice to perform it...It is the single circumstance which raises librarianship, and specifically reference librarianship, from a technique to a mission."

The paragon described by Mr. Mearns is difficult, though certainly not impossible, of attainment. Many reference librarians have achieved most, if not all, the qualities listed. Some of them are mainly the result of age and experience, except for that rara avis, the "born reference librarian," who seems to enter the profession with the combination of attitudes, intellectual curiosity, broad knowledge, tenacious memory, sense of intuition, inspiration, zeal, and liking for people which comes to most of us, if at all, only after years of service.

To go further with a consideration of personnel, might encroach upon Miss Knox's area for no doubt she will deal with some of the specifics as contrasted to the generalities given here. However, the number one importance of reference personnel from the standpoint of good public relations should be emphasized. The reference librarians and the circulation staff form the impressions which the public has of the whole library. Of these two groups, the reference librarian's contact is likely to make a longer-lasting impact, since the service is more personal and the pressure of circulation work necessarily limits its attention to individual readers to brief, perfunctory meetings.

Speaking of public relations, there is a negative side to reference work of which the reference librarian must be aware. Unless handled with tact and diplomacy, these aspects contain the seeds of misunderstanding, disagreement, and irritation on the part of the library's public. There are several types of questions which the reference librarian should not attempt to answer--for example, certain medical and legal questions. It would be a dangerous matter for the reference librarian to try to diagnose an illness by consulting a medical reference book. On the other hand, if a person comes to the library to see a medical dictionary or encyclopedia, it is entirely legitimate to show him the book. There is a clear distinction here.

The same holds true in the case of an individual who comes to the library for legal advice, in the hope of saving a lawyer's fee. Perhaps he wants help in drawing up a will or some other legal document. Here again one is perfectly justified in handing him a book of legal forms, or a work entitled How to Make Your Own Will, but that is the place to stop. Or if someone comes in and says that he is being cheated by his landlord, he can be referred to the section of the state statutes dealing with the problem of landlord and tenant. Actually to advise the complainant or to attempt to interpret the statute, however, would be courting trouble.

Another type of question to shy away from is one involving copyright information. The reference librarian is asked perhaps whether the copyright on a certain play has expired and whether it can be staged without paying royalties, or whether it would be safe to publish certain portions of a book without the permission of the author and publisher. Those are questions which the reference librarian answers at his own peril.

In a college or university, there are some other tricky kinds of questions. For instance, the reference librarian should not try to interpret catalog descriptions of college

courses. The student should be sent to the professor concerned and let him tell what the course is about. It is also treading on dangerous ground to recommend books for cramming, particularly around examination time.

College and university libraries are less annoyed by puzzle fans and persons participating in contests of all kinds than public libraries, but there are a certain number of them even in university libraries. A year or two ago, the reference collections of some of the libraries in New York City were almost wrecked by thousands who participated in contests sponsored by the New York Herald Tribune. It often happens that the reference librarian will not be told and does not know that questions are concerned with puzzles or contests and so spends considerable time looking up the information requested. Assuming, however, that the reference librarian does know the purpose of the question, should he or she spend any time on it? Opinions differ. Some librarians feel that most contests have a certain educational value and that giving help encourages people to use the library and perhaps leads them to more worthwhile reading. A limited amount of assistance may be justified if it does not interfere with other activities. In any case, possible sources of information might be pointed out to the inquirer, after which he could be left to do his own searching.

Another category that causes trouble in the reference department are foolish and trivial questions. Again, these may be more characteristic of public than of other types of libraries. Regardless of how absurd or unimportant a question may appear to the reference librarian, it should be remembered that it is nearly always important to the asker, and the library cannot very well refuse to answer it without explanation.

This writer's first reference question about astrology caused him amusement. However, he was informed indignantly that astrologers number among their followers several million Americans, including governors of states, U.S. Congressmen, and other prominent personages. The people who believe that Francis Bacon, or the Earl of Oxford, or Sir Walter Raleigh, or Christopher Marlowe, or anyone except William Shakespeare actually wrote the Shakespearean plays, are always with us. There are perhaps more crackpots in the field of religion than any other, though fortunately for the rest of us, most of them sooner or later move to California. These and many other members of the lunatic fringe the reference librarian must suffer with patience and fortitude, and even try to greet with a smile.

Another aspect of the reference field which should be con-

sidered briefly relates to organization. Of course, if the total library staff amounts to one professional person, as it does in many school and small public libraries, the matter of organization is not particularly significant. The librarian does reference, circulation, cataloging, and anything else that needs to be done. As the staff grows, however, questions about the most efficient type of organization arise. In recent years, the divisional arrangement has become predominant. Almost without exception, the new college and university library buildings that have been erected since the end of the war are designed to be organized along divisional lines, typically a humanities division, a science division, and a social science division. Along with the divisional set-up have come changes in staff requirements. For example, in reference work, the divisional library for science does not want a specialist, say, in chemistry, nor a general reference librarian who knows something about everything but has no exhaustive knowledge of any area. What is needed is something in between, what might be called a generalized specialist, a person who has some familiarity with all the principal branches of science, without being an expert in any particular branch. What is to become of the general reference librarian under these conditions--that paragon of a walking encyclopedia, who sees all, knows all, and tells all? Some have suggested that the species is headed toward extinction. This is doubtful because the generalist will continue to be needed in the library in the same way that the general practitioner is needed in medicine, not only to serve the one-man library or small community, but to see the whole as opposed to the parts. The time has passed undoubtedly when it is possible, as Francis Bacon and John Milton imagined in the seventeenth century, that a single human brain could comprehend and hold all existing knowledge. As long as libraries attempt to cover the universe, however, taking all knowledge to be their province, we shall need a synthesizer, the person who can take the broad view, the kind of person who is best represented by the highly competent general reference librarian.

It is not implied, though, that the specialist is not essential also, and the more expert knowledge the library staff as a whole possesses the better will be its reference and all other services. Even if there are only two people on a staff, it is desirable for each of them to have one or more subjects on which he knows more than the average person, and to go on extending his knowledge as opportunity offers. This will help to keep him intellectually alive--a must for a good reference librarian.

Thus far this paper has touched upon practically every feature of reference work except the materials with which reference librarians deal, though Mr. Mearns' statement that the best reference librarians have a "sense of media" is close to what this writer has in mind here. There is an inclination among lazy, inexperienced, or poorly trained reference workers to regard the reference collection proper as the only tools with which they have to deal. After they have exhausted the encyclopedias, dictionaries, indexes, and similar standard reference sources ranged around the reference desk, they consider their job finished. For a first-class reference librarian, these works are merely the beginning. He looks upon the entire library collection as part of the reference department's resources, and if this does not produce the answer, he is likely to turn to other libraries or even informational sources outside libraries. He knows that the information he seeks may be buried in government reports, files of periodicals, newspapers, in pamphlets, mimeographed or other near-print publications, in a novel, a play, a poem, an essay, or in any of a thousand other places, none of which may be included in the traditional reference collection. Here is the difference between the routine reference worker and the dedicated, enthusiastic librarian who won't accept defeat as long as he believes the information he wants is in existence and may possibly be found. For him, every book, every scrap of material in the library is a reference tool.

A fitting conclusion for this discussion is a statement from a French librarian written nearly 200 years ago. In an address entitled "The Duties and Qualifications of a Librarian," delivered before the Sorbonne in 1780, the Abbé Jean-Baptiste Cotton des Houssayes wrote:

> Neither cold nor heat, nor his multiplied occupations, will ever be to him a pretext for evading the obligation he has contracted, to be a friendly and intelligent guide to all the scholars who may visit him. Forgetting himself, on the contrary, and laying aside all occupations, he will lead them forward with a cheerful interest, taking pleasure in introducing them to his library.[4]

These words might well serve as the reference librarian's credo.

References

1. Wood, Raymund F.: What Exactly Do You Wish to Know? California Librarian, 13:213, 245, June 1952.

2. Bishop, W. W.: The Theory of Reference Work. ALA Bulletin, 9:139, July 1915.

3. Mearns, David C.: Master of Materials: Random Reflections on Reference Librarianship. Catholic Library World, 19:249-251, 275, May 1948.

4. Cotton des Houssayes, Jean Baptiste: The Duties and Qualifications of a Librarian. In: Dana, J. C., and Kent, H. W., eds.: Literature of Libraries in the Seventeenth and Eighteenth Centuries. Chicago, A. C. McClurg Co., 1906, pp. 39-40.

IDENTIFYING THE LIBRARY'S PUBLIC AND COMMUNITY

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A community has been described as "a constellation of institutions, organizations, and associations held together by their relationship with each other." To that, should be added "for the purposes of affording opportunities for individual development and expression, while promoting the common good." This institute is concerned with the library's role in this constellation, and particularly with its role as the community information center. As B.R. Berelson has noted in The Library's Public, the library has many publics in the sense of distinctive groups making distinctive demands or having particular library needs.[1] This is also true of its reference services. The purpose here is to identify some of these publics that have need of the library as the community information center.

In discussing the library's publics there is a tendency to think of statistical aggregates, each mutually exclusive and with definite and rigid characteristics. But these groups are composed of individuals and these individuals are often members of different groups in their use of library services. Moreover, the interests and needs of these individuals vary in intensity both in point of time and as compared with other members of their groups. For example, many people have mutual enthusiasms, some interests in common but of varying intensities, and some completely different. A good community information center will not only anticipate these wide and varying needs but will also gear its reference skills and resources so as to effectively satisfy specific individual requests. It will be able to provide simple factual information with dispatch and will be equally prepared to marshall its complete resources and skills for the person who wishes to pursue a subject in depth. Moreover, it will have knowledge of and access to other resources that will supplement its own.

Let's take the first library public--the family. Man's most intimate environment is the family circle. During his early and most impressionable years, it is his window to the

outside world. Throughout his lifetime, there will be familial overtones to the education he acquires, to his standards and values, and to his interests and activities. The family is not the only agency, but it is the primary one for transmitting man's social heritage.

While formal education is now largely a school function, the family plays a vital part in the total educational process. Whether accepted or rejected, the family social attitudes, its religious beliefs and moral standards, its esthetic and intellectual tastes, and even its recreational preferences leave distinct and lasting impressions on the growing child.

As an economic unit, the family has considerable need for consumer information. Its economic well-being is not solely determined by the earning capacity of its members. Of equal importance is how wisely this income is used. Thus, the family has need for information on wise buying, budgeting, and other household matters. It has a need for a clear understanding of how economic policies affect it, and how its interests can best be protected.

The library can play an important role in creating a favorable environment for family living. It can provide technical and professional literature to those organizations and institutions concerned with family welfare. It can also provide families with reliable information upon which intelligent decisions can be based, such as: home management, child care, family adjustment, and other equally important topics. It can stimulate wholesome recreation and creative use of leisure time.

Students constitute a very important public using the library's reference services. High school students and, in many communities, college students use the library, particularly for their school assignments. This public is extensive both in number and in range of needs. Population trends, coupled with the rising educational level, assure a steady increase in this group for many years to come. To effectively serve them without curtailing services to other groups, requires careful planning and cooperative action between the public library and the school and college libraries of the community.

There is a close correlation between adult library use for serious purposes and formal schooling.[2] People with better schooling acquire appreciation of and some facility in the use of library resources. However, despite intensive library use during school years, many people make limited or no use of library services during adulthood.[3] For some, this is to be expected as new interests and needs can be satisfied through other resources. But for many this drop-off is a distinct loss.

Students are a "captive" public, inclined to associate libraries with formal education. The challenge to the library is to widen their vista by demonstrating their scholastic needs both in their maturing years and in maturity.

Choosing and preparing for a career are major preoccupations of youth. In providing vocational and career materials, the library fills a social as well as individual need. It is important to society that the skills and talents of each generation be used to the fullest.

Living up to the demands and challenges of one's chosen career, requires sustained effort on the part of many throughout adulthood. This is particularly true of those engaged in technical, professional, and managerial fields. At the present tempo of change, like Alice in Wonderland, they must run in order to remain in the same place. They have need for access to the vast flow of literature, not only in their own field, but also in impinging and overlapping areas. The library as a community information center, sensitive to their needs and skilled in servicing them, is of prime importance.

Akin to this service is the service provided to business and industry. By providing a community pool of informational and research materials, tailored to the economic needs of the community, the library offers a three-way benefit--to the individual, the business, and the community as a whole. It contributes to the strengthening of the local economy and the broadening of employment opportunities. Good service to business and industry is provided by a number of public libraries. Strong collections have been built up, community resources inventoried, effective reference tools and techniques devised, and interlibrary cooperation utilized. Where strong collections have been built up, and good service provided, business and industry have been quick to make use of them, as attested to by the heavy and increasing demand for both factual and research data.

Much of this material is of equal interest to organized labor. Reliable and current information on economic trends, employment and wages, labor relations and other matters are of value to both labor and management, particularly for effective collective bargaining. In some communities labor has made considerable use of these materials but on the whole it has not been as responsive as industry. Good library service to labor is a mutual challenge both to labor and the library.[4]

Reference service to local government provides a worthwhile opportunity to the public library. Economic data of interest to industry and labor also are pertinent to the local of-

ficial, lawmaker, or bureau head. Information on new developments and trends in the fields of public administration, taxation and government, finance, public works, city planning, education and recreation, are of particular significance and interest. A closer liaison between the library and its parent body, the local government, can be of immeasurable benefit to both.

"Labor and leisure are two sides of man's shield; both protect him. Labor enables him to live; leisure makes the good life possible."[5] Increasing productivity, social advances and medical progress are creating a greater amount of leisure time. A valuable measure of this age will be the good use made of this new leisure.

A function of the public library is to "encourage wholesome recreation and constructive use of leisure time."[6] Some of this leisure time will be spent in activities which have value primarily because they release tensions and restore our energies. But these gifts of additional leisure time should also afford us greater opportunities for self-enrichment and for fuller participation in the social, political, and cultural activities of our communities.

Dan Lacy in "The Adult in a Changing Society" is optimistic concerning this. He cites as evidence the larger popular participation in adult education, the increase in book buying and reading of informational and cultural literature, popular support and participation in the arts and music, and a sharpening interest in politics.[7] The continuing uptrend in library nonfiction circulation supports this view. Also, many persons engaged in reference work have noted through the years an increase in adult requests for information and materials in the sciences, the arts, economics, and political science.

The library as the community information center should stimulate and help people in constructive and creative use of leisure time by providing materials that will develop their skills and interests. It should be able to direct persons to groups and organizations that share their interests. It should call public attention to worthwhile programs and activities taking place in the community or provided by radio, television, and other media of communication. Its resources should also provide help to formal and informal groups promoting these activities. As pointed out by Willard C. Sutherland in "A Philosophy of Leisure," the opportunity which mass leisure provides for creation and assimilation of culture requires for its development creative elites, small groups of connoisseurs who create and mold taste...and accept the responsibility for cul-

tural initiative and the development of cultural traditions."[8] Above all, the library should encourage people to spend a greater amount of their leisure time in the "wonderful world of books."

Not as definable as the high school and college student public, is the public or public demand generated by adult education activities. Libraries are participating in this movement in various ways--organizing classes, coordinating community activities, providing accommodations. A consistent and necessary library activity is the reference service provided to both leaders (or teachers) and participants--services that make these activities more meaningful.

Nor should the fact that the library has a unique role in adult education be overlooked. Oriented as it is to the individual through its collection, it affords him the opportunity to engage in a lifelong learning experience in a manner particularly geared to his interests and measured to his pace. The direct personal assistance given to readers in the use of library resources--reference work--is the essential library ingredient.

This paper has identified a number of library publics and outlined their needs in general terms. But the library as a community information center must tailor its resources and services to meet these needs as reflected in its own community. It, therefore, needs to identify the community it serves.

Identification of a community calls for a knowledge of its characteristics and resources and, also, an awareness of the external factors that affect it. The modern community is particularly sensitive to outside forces and events. Mass communication, rapid transportation and travel, and a rising educational level have stimulated interest in events beyond a community's border. International tensions, economic interdependence, and the sharing of mutual problems have made this awareness not only profitable but necessary.

How a community responds to the opportunities and problems of group living will largely depend on its physical, human, and social resources. Its physical resources are the gifts of nature improved by the human resourcefulness. Its climate, the availability of water and power, and location relative to transportation and proximity to markets and raw materials, are some of these physical resources. They are determinants of its economic functions and its adaptability to economic changes.

Human resources are the people themselves. Their educational level, social values, customs, and religious beliefs, as well as their cultural, esthetic, and recreational interests, set

the tone and pattern of community living. Their skills, energy, and resourcefulness are the sinews of its economy.

A community's social resources are the institutions of society which have resulted from group living. They are the instruments by which a community carries out its group functions and satisfied its needs. Such social resources as business, government, educational and cultural institutions, health and welfare agencies, recreational facilities and the like, are all necessary elements in our way of life. The library is an important part of this social framework.

For the library to effectively serve as a community information center, the library must not only identify its public and its community but must also be closely identified with them.

References

1. Berelson, B. R.: The Library's Public. New York, Columbia University Press, 1949, p. 133.

2. Ibid., pp. 24-30, 90.

3. Ibid., pp. 21, 22, 116.

4. Cosgrove, John E.: The Mutual Challenge of Library Services to Labor. ILA Record, 10:39-40, Oct. 1956.

5. Woody, Thomas: Leisure in the Light of History. Annals of the American Academy of Political and Social Science, 313:4, Sept. 1957.

6. American Library Association. Public Library Service; a Guide to Evaluation, with Minimum Standards. Chicago, The Association, 1956, p. 4.

7. Lacy, Dan: The Adult in a Changing Society. Library Quarterly, 27:279-293, Oct. 1957.

8. Sutherland, Williard C. A Philosophy of Leisure. Annals of the American Academy of Political and Social Science, 313:3, Sept. 1957.

SATISFYING THE NEEDS OF THE COMMUNITY'S LIBRARY USERS

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When you, and those associated with you in planning your library's program of service, have defined your objectives and identified the public you seek to serve, it is necessary to consider means of satisfying the needs of the people you serve. It is the function of this paper to explore some possible approaches to the problem of satisfying these needs... approaches, many of which will be developed in greater detail in later papers at this conference.

Our objective here will be to consider briefly the importance of a librarian's knowledge of the economic, civic, and social patterns which make up the fabric of community life, then the selection of materials which will give the library the informational resources to meet the particular needs of the community. In this development of the library's collection, the role of intelligent, interested citizens can be an important one. Our staff resources must next engage our attention, as we consider the qualifications of the reference librarian and the planning of staff time which will best utilize the special skills of professionally-trained personnel. Since none of our libraries can encompass all of the recorded information which our users may need, we must give continuing consideration to the means of interlibrary organization that will achieve prompt transmission of information between libraries. Finally, we must see that the public is made fully aware of the resources and services that the library offers.

As a librarian you should be one of the best informed persons in your community. All aspects of community life are of keen interest to you and one of the most important aspects is the economic development of the community.

Your community's economy may be vibrant, expanding, or it may be searching for new sources of income, new products to make. Are technological developments undermining the economic base of your community? If you don't know these things, the executives of your industries or local business

firms do know, and these are problems that they will be willing to discuss with you. The problems and prospects of the economic life of your community are of vital concern to the library, not only financially, but because, if the library is to be the community information center, it must anticipate what demands for information it will receive.

A second aspect of community life which is of special concern to librarians is in the area of civic problems. What is happening in the civic life of your community? Perhaps your city government is most concerned with problems of pending, or accomplished, annexations of new area. Or, possibly urban renewal is the key concern of your government officials. The library staff should know what pattern future development of city parks and recreational activities will take, and why; what ultimate goals planning and zoning activities are working toward; what major problems face the school system; perhaps a re-look at the curriculum, a building program, the addition of special services to special groups of children, etc.

A third vital aspect of the community about which a librarian must have special knowledge concerns the social structure of the community. What is the composition of the population in your service area: in terms of age, nationality, sex, educational level? How is the population organized into groups? The activities and goals of these groups are your concern, also. Most important, do you know how the composition of your population is changing? What picture will your community present in ten or twenty years?

There might be one of two reactions to this brief outline of what the people who are doing reference work in a medium-sized library should know about the community: its economic life, its civic life, and its social life. One reaction might be that all competent reference librarians do know these things about the communities which they serve. This is a matter of degree, however, and this should be an area in which our knowledge constantly is being extended by personal contacts with community leaders, by study of all available reports affecting the community's future, by active participation in community organizations, and by planned contacts between the library staff and professional workers in other fields to discuss the developments and problems which are of mutual concern.

Another reaction might be that, after all, this is the job of the library administrator, not the reference staff. It is also the job of the administrator to know these things about his community and, if he is alert, he should know more about these topics because he has more opportunities and more con-

tacts in the community with industrial, civic, and social leaders than does the reference librarian. But in an adequately-staffed, medium-sized library the administrator is not usually on the direct firing line, working with the day-to-day or minute-to-minute questions that make up the community information service. He is not making the initial selections of reference materials, in most cases, although he may participate in the book selection process at some point. The excellence of the library's service will depend on what all members of the reference staff know about these aspects of their community: economic, civic, and social. This knowledge should be extended and reinforced by staff meetings that devote adequate time to the community's problems and the library's relationship to them, as well as to the purely internal administration of the library.

Development of the library's resources must concern us here for a collection well-chosen for the needs of the public it is to serve is basic to the growth of the library as a community information center, and its development is perhaps the most enduring contribution we, as individuals, can make to our communities.

The public library's collection and services must be determined in relation to the work of all the other library services in the area and their policies. The best of specialized libraries is almost useless to the average man if it is open only at times when he is at work. If organizational membership is necessary to use a library, the public library must build its collection almost as though that special resource did not exist in the community.

Our familiarity with the problems and resources of the community will, of course, be reflected in the selection of reference materials. Basic materials will be needed in almost all fields, but emphasis should fall on the fields of most vital concern to the community. The matter of selection is not a small problem since the library as a community information center must utilize not only books but pamphlets, magazines, maps, government documents, microfilm and other reproductions, and all forms in which information is conveyed. Staff time must be adequate to survey fields and select the best items for acquisition. This conference will provide an opportunity to become more familiar with, or to meet for the first time, new tools in the several fields of interest to the medium-sized library.

It is interesting to note that Robert L. Collison has detailed some of the resources which can confidently be expected

in an average public reference library in a medium-sized town in England. Many of these points will be equally true of the medium-sized public library here. He lists materials on local history, materials about local industries and commerce, information files relating to local organizations, local experts in various subjects, etc. Often found, too, are indexes to local newspapers and to other out-of-the-way items. Materials on local government, collections on law, long files of periodicals, dictionaries of foreign languages, and collections of books and periodicals on librarianship are some of the points that he mentions as basic resources which one can reasonably expect to find in the reference library of any medium-sized town. [1]

The points emphasizing local materials should be underscored for here librarians have an opportunity and a responsibility to provide resources that are not available elsewhere. It is often possible to utilize the special knowledge of particularly talented citizens in the community in the selection of these materials. For example, the local city planning director can help alert the librarian to new works in his field; or the local art association can offer worthwhile suggestions for helpful additions to the collection. This does not mean that the librarian gives up his book selection responsibility but rather that he uses the talents of specially trained people to supplement his own training.

Learning your community's problems and building an excellent collection are necessary objectives, but the vital link to bridge the gap between the prospective user and the collection is your reference staff. It is obvious that the link between the two consists of well-educated and well-trained reference librarians.

While the staff for the community information center must know reference sources and how to use them, this is incomplete without the training and personal qualities which make one adept in the art of problem solving. The reference staff needs to know how to find out what the real problem is, how to approach a problem, how to identify the problem within a field or sub-field of knowledge, and how to analyze the problem into its elements. These steps are necessary before the knowledge of reference sources can come into full play with the materials of the library.

Academic training is essential, but not everyone with academic training is the possessor of the personal qualities which make a creative reference librarian. Most important is intellectual curiosity. A person must find problems interesting

and exciting. For really excellent service, the reference librarian must consider the resources of the library merely a first step in problem solving. That the answer cannot be found in the library's collection does not mean that there is not an answer to the question. Other staff members, with a variety of educational backgrounds, may offer a new approach. Here again is an opportunity to utilize the individuals of intellect in the community, all of whom should be resource people for the community information center.

A resource person or agency can often be helpful and we each need a Who Knows What for our own community. In each city the librarians should know to whom they can call for information on electronic computers, artificial skating rinks, photo duplication methods, etc. This may be an actual index or it may exist in the minds of the reference staff. The point here is that there is a problem to be solved, and a medium-sized library's resources should be considered merely the first step, and not also the last, without first tapping this reservoir of creative talent in the community.

What does the reference librarian need besides training and a creative, inquisitive mind? The reference staff bears responsibility for creating the right atmosphere in which questions can, and will, be asked. An attractive appearance is no liability. Most important is a pleasant appearance which suggests that the librarian is approachable, and a personality which convinces the library user that the reference librarian is sincerely interested in his problem. The individual working in this capacity must have respect for another individual as a person, regardless of whether he is a child, a young adult, or an adult.

The best department store and the one that makes the most lasting impression is the one in which you get the feeling, the moment you walk in the door, that you are important. The staff, if engaged in other duties, immediately puts them aside to see if they can help you. It is obvious that other work is secondary, and your problem is of first importance. This should be the ideal in the adequately-staffed, medium-sized library.

All too often the type of service we give is the type where the librarian may be seen at work and will answer questions if one has the nerve to approach and interrupt. What a difference depth of service we would give if, instead, we approached our customers to ask them if we may help them. Department stores apparently do not feel that their staff members must look busy to be considered busy. If we utilize all possible labor-saving devices, have an adequate clerical staff and use it

properly, need the situation be different in medium-sized libraries during the busiest hours?

Reference librarians should certainly be provided with the time to stay up to the minute with current events by reading current newspapers and news services.

However much we may lament the very real shortage of professional librarians, from the standpoint of an administrator there are very few of us who are completely without fault in the matter of having professional librarians do purely professional work. In this acute labor market, professionals should not be doing work that can be done by competent clerks. While we lack patience with any professional who does not pitch in on almost any task when there is an emergency, we need a long, sober look, not at the emergencies but at the everyday duties of our professional staff to make certain that our librarians are not spending their time doing jobs that can be done equally well by clerical people. This is not a problem peculiar to the medium-sized library, and indeed the large library may present the same problem multiplied.

Charles A. Goodrum has some interesting observations to make in his Library Journal article entitled "The Reference Factory." Here is an emphasis on what it costs to have people of differing salaries and competence performing various tasks in the Legislative Reference Service of the Library of Congress. What work can we afford to have done by whom is a problem which must bedevil us in this era of rising costs, regardless of the size of the library which we are administering. Mr. Goodrum's description of how the Legislative Reference Service is organized to assemble materials to answer questions, and to give away materials in many instances, should prove provocative to many of us.[2]

In summary, we might look at the seven qualities that David C. Mearns has listed as desirable for a reference librarian, or to use his term, "master of materials." The first quality is literacy, the ability to comprehend easily, to receive communication. The second is imagination or resourcefulness, the third enthusiasm, the fourth persistence, and the fifth a sense of media, which makes the reference librarian a true master of materials. The sixth quality is humility, which means that the librarian does not consider it a personal affront if the information cannot be found in his collection, and the seventh point is love for people's service, or that spirit of service which we hope motivates all librarians.[3]

These competent, creative people who will turn the potential we see in the library as a community information center

into reality must be well paid. We should not force creative reference librarians to become administrators by having a too-low ceiling on the monetary rewards which they may reach as they become more and more expert in their special field of competence.

We have noted previously that in medium-sized libraries we cannot hope to meet fully our public's need for information by using materials in our collections. We need much greater development of our cooperative relationship with other libraries in our area, state libraries, and the large libraries in the nation. Spiraling prices in our economy have caused publishers to more nearly print the number of copies that they think they can sell. The book of yesterday which you would like to buy today is increasingly unavailable, and while it is possible to make worthwhile strides in building basic collections, it is not possible always to build today with all that you want of the basic books from other years.

If the new library feels more urgently the values of cooperation, it is essential that every medium-sized library devote attention to better means of interlibrary cooperation if we are to make best uses of the state, regional, and national resources.

Interlibrary cooperation has been very much a subject of professional discussion in this writer's area of Michigan in connection with the proposal, not successful in its first appearance before the state legislature, for a Saginaw Valley information center which would be a branch of the Michigan State Library. Housed in the Hoyt Public Library in Saginaw, this center would consist of two professional librarians, clerical help, a station wagon, and other necessary materials. This proposal, if ultimately successful, will provide staff to assist in training the untrained personnel in the very small libraries of the area, and will prove invaluable to the medium-sized libraries in coordinating their resources with those of other public libraries, with the library of a proposed tri-county college, and with industrial libraries in the area.

We need to re-think the element of cost in interlibrary cooperation and be more cognizant of the fact that speed is service. Library interloan requests still move by mail. Our new book-trailers, now in the final planning stage, will have compartments which later may be used for two-way radio equipment. These compartments represent optimism that we are going to be able to work out an arrangement with the County Road Commission or the City's Department of Public Works to participate in a radio network. If we do this, our rural communities will be in touch with the central library's information

desk and a person visiting a book-trailer in a remote corner of the county will have the reference resources of the library more quickly at his service. A person who can have his reference question answered while still on the book-trailer, or whose book request is mailed to him before the book-trailer has time to return to the central library is going to get better service than he would get without rapid communication. The use of teletype, two-way radio hookups, and more extensive use of long-distance telephone lines is more expensive than the U.S. mail, but if businesses and modern city and county departments need rapid communication, do not libraries also? Economy is not a matter of cost, but a matter of how much service you buy with each dollar of the library's budget.

In our city, drug stores deliver goods to homes without charge. Could we not deliver library materials in a similar way? It would cost money but do we not now spend funds for services which are not inexpensive to provide? We select, order, catalog, classify, and house some materials which we know will be used infrequently, because we consider it important to have the information available. A well-prepared story hour for a small group of children is not an inexpensive service, but we consider it an important one.

What would happen to the use of our resources if the housewife, marooned at home without a car and with small children, could get library materials delivered to her home as easily as she can now, in most cities, have goods delivered from the drug store? It would be interesting to find out.

It is not enough to develop the library as a community information center. We must consider also what public relations approach is necessary to call this service to the attention of this community and to keep publicizing its resources.

It is always a humbling experience to find out how many people in the community do not know what services the library offers. For example, in January we distributed a questionnaire to our users and were surprised, and chagrined, to find that 50 per cent of the people using the library did not know that they could get questions answered by telephoning the Library. We are doing something about this, and for several months now new books added to the collection have carried an advertising insert under the plastic jacket calling attention to telephone information service. A few weeks ago our printed calendar of educational and cultural events carried a panel advertising telephone information service. This was sent to everyone in the city who receives a water bill.

Do we realize that we have an exciting resource in our

function as the community information center? Should not the story of this resource be constantly told in newspapers, on the radio, on television, and in displays? If commercial firms can apply direct mail advertising to their products or services, should not we be telling the story of the library as a community information center, and what it can mean to individuals, in this way?

We do not have the stimulus of having a library across the street from us which is engaged in competition with us to see who can give the best service, the most efficient service, at the least cost. It might have interesting results for the library's function as a community information center if we acted as though we did.

May we here emphasize the observation made last year by Robert L. Collison that reference libraries are at a turning point. He points to the fact that a traveller arriving in an unfamiliar town knows that he is able to enter any post office and will be able to obtain certain services there. He knows that he will not receive the same services at a sub-post office that he will receive at the main post office, but he has some idea of what services may be obtained where.[4] How different the situation is with library service! With federal funds now available to demonstrate the practicality of larger units of library service in non-urban areas, we can hope that the process of getting wider coverage of library service will be speeded up.

We must increase our knowledge of the community we serve and develop our collections to meet tomorrow's as well as today's demands. Our reference librarians must be outgoing in their approach to the public, as well as competent in their abilities. We must decide that faster service justified our use of rapid communication between libraries, and link more effectively our medium-sized libraries to larger resource centers. This exciting and unique community resource we are perfecting--the community information center--must be kept in the public eye by constant and effective publicity. This is indeed an exciting time to be considering what will probably turn out to be the library's most important role in tomorrow's society, its function as a community information center.

References

1. Collison, Robert L.: Information Services in Public Libraries. Aslib Proceedings, 4:213-222, Nov. 1952.

2. Goodrum, Charles A.: The Reference Factory. Library Journal, 82:121-130, Jan. 15, 1957.

3. Mearns, David C.: Master of Materials; Random Reflections on Reference Librarianship. Catholic Library World, 19:249-251+, May 1948.

4. Collison, Robert L.: Reference Libraries: The Turning Point. The Librarian and Book World, 45:81-83, May-June 1956.

INTERLIBRARY ORGANIZATION OF REFERENCE SERVICE

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The greatest development in American public library service has been realized in the large cities. These large city "systems" as they are frequently called, provide equality of service to everyone within the area served. The patron of the independent small library, inadequately financed, and therefore poorly staffed and poorly supplied with books and periodicals has the same need as the city dweller for services of skilled librarians using the wealth of materials available in such a library system.

As is pointed out in the new Public Library Standards "even though local resources are limited, public officials and librarians have a responsibility to provide full library services to the community through a structure of cooperation and government."[1] In other words, to combine two of the standards: "Every individual should not only have free library service available in his local community but he should also have access through his local outlet to the full range of modern library facilities provided by regional, state, and federal library agencies."

Libraries working together and approaching their problems cooperatively are in a much better position to meet the needs and demands and to offer a more complete coverage and greater variety of services than any one library can do individually. It is this cooperative approach idea on which the new Public Library Standards have been formulated. To quote from Public Library Service: a Guide to Evaluation, with Minimum Standards: "This cooperative approach on the part of libraries is the most important single recommendation of this document."[2]

Some of the types of library systems in existence include:

(1) City systems which consist of the main library and all agencies of its extension program.

(2) County systems organized in compliance with legal

regulations to provide equality of service to all people of the county or counties served, with a central administrative unit.

(3) Regional library service centers serving a specified area.

(4) State agencies.

(5) Several small libraries banding together to form groups but without changing their legal status.

(6) An independent library, or an area in which no library service exists, affiliating with an existing system to receive library service on a contractual basis.

Systems may come into existence, or existing systems expand, by affiliations or agreements--some very simple, some highly complex. The first three types of systems listed above: city, county, and regional, provide fairly well for cooperation within their own units. They may also, and quite probably do, cooperate externally with other like systems and libraries of other types: university, college, special, and state. Examples of regional library service can be cited at all levels of control; multiple county, county, and regions within city systems. No doubt state agencies find need for cooperation with large university libraries--particularly large university libraries within their own states.

Of the cooperative techniques practiced heretofore, the ones that would seem to be particularly useful for public libraries include: interlibrary loan, photostatic and microfilming service, teletype, subject specialization within area, bibliographic centers, union catalogs, and closed circuit television. Brief mention of some cooperative ventures in existence, both here and abroad, will give a glimpse of some of the possibilities for further cooperative development.

Interlibrary loan is probably the oldest, most widely recognized, and most frequently practiced aspect of interlibrary cooperation. The basic philosophy underlying this service is that libraries are not merely storehouses for books and related materials but are agencies established for the promotion of their use. In more recent times, when possible, photostats, or microfilms in lieu of the books themselves have been sent to borrowing libraries.

Teletype between Racine and Milwaukee Public Libraries, having been in continuous use since January 1950, is probably the first example of its use between two libraries. It not only saves time in making interlibrary loans but it also speeds up service in answering reference questions.

To date, the use of closed circuit television in libraries

is limited but the ease and speed with which departmental or branch libraries can obtain information from a book or catalog in the main library or in another branch by this method, will no doubt justify a sharp increase in its use.

Subject specialization, a prime consideration of large systems, has been mentioned as a means of cooperation for several small libraries banding together, each being responsible for coverage of a particular subject. Even though it is a plan now being carried out by the various borough libraries in London it has drawbacks for a small library. However, it would merit consideration before discarding the idea.

The development of union catalogs has proved invaluable to scholars. Besides the National Union Catalog at the Library of Congress, the bibliographic centers provide regional union catalogs. Another type of union catalog is the Union List of Serials.

The question is often, and properly, asked as to the reasons which make cooperation in reference services desirable. Two factors which make such cooperation not really desirable but almost essential are finances and growth.

As pointed out in the new Standards, a library or group of libraries serving 20,000 people require almost twice as much per capita to achieve minimum standards as a library serving 200,000 people. Funds provided locally for a small, independent library are not increasing at the same rate as is the demand for service; in some areas a sufficient increase is not forthcoming without passage of a referendum to increase the tax rate.

The second factor necessitating cooperation--growth--applies to the increased demand for informational services as well as to the increase in volume and variety of publications. This demand for informational services has been prompted by several factors. Librarians themselves have been increasingly publicizing their materials and services. The steadily rising educational level of the general population leads to new demands for service. A snowballing interest in scientific and technical subjects is reflected in the demands for such materials and for information contained therein. Cooperation between school and public libraries has helped stimulate increased demands on public libraries. Through such nationwide projects as the Junior Chamber of Commerce's "Operation Library" more and more people are becoming library conscious. The annual "National Library Weeks" are stimulating an even greater awareness of public libraries.

Another element of growth is in the amount of material

available to libraries. One example of the increase in the volume of publishing can be drawn from the tremendous output from the United Nations in the past few years as compared to the number of publications from the League of Nations over many years. The great variety of new serial publications including additional trade journals, house organs and periodicals of a general nature, might also be noted. An increasing number of publications from recently established governmental agencies as well as those long in existence furnishes another example of growth. This increase in quantity and variety of materials requires additional trained personnel to provide adequate dissemination of information.

Cooperation on the national level has not yet developed very far. Exclusive of the Interlibrary Loan Code of Regulations and the services of the Library of Congress, the efforts or attempts at nationwide coverage for cooperative reference services have been negligible. If interlibrary reference service could be organized nationally, perhaps the American Library Association could assume major responsibility for promotion or execution of certain professional needs. These might, for example, include such as:

A. Urging government subsidy for undertaking bibliographical work needing to be done.

B. Urging greater financial support of libraries in general.

C. Providing English translations of fine foreign literature.

D. Urging bringing up-to-date certain standard reference works of the past: for example, Moulton's Library of Literary Criticism of English and American Authors, and the Encyclopedia of the Social Sciences.

E. Compiling more indexes.

It has been suggested that this paper include a specific plan for cooperative reference service, based on some general plan for the systematic organization of existing libraries. An interlibrary organization of reference service implies cooperative use of personnel and materials to provide reference and information service directly to the individual or through a local library of the municipality, system, or region participating in the cooperative venture.

Unless a major organization of a library system is underway any plan made for cooperation in reference service on the local level should be simple, universally adaptable, and should

permit libraries to start cooperating with their present resources and reference personnel. While highly desirable a plan which requires for its support large grants of money from a foundation and a special staff is not practical because very few libraries can secure these.

The best framework for the development of cooperative reference work would probably be the regional library--in such a framework cooperation would naturally grow up, yet there is no reason why reference librarians themselves should not initiate cooperation in their work if they can gain the consent of their boards to doing a little voluntary service for their neighbors. However, the areas of cooperation should be set up in such a way that they will either coincide with the probable areas of future regional libraries or fit neatly into such areas. For instance, Cook County outside Chicago would probably be one regional library unit but since it is a rather large area for such a voluntary project the northern part of Cook County, perhaps the part north of Roosevelt Road might be a section suitable for organization. Let us see how such a project would be carried out.

In the first place the inauguration of a new program of this sort needs strong leadership and may require unusual powers of persuasion. What is necessary is a new outlook--the ability to think of reference service to the whole population of the section chosen for development rather than to the people living in one small library's territory. If trustees, librarians, and reference personnel can be led to catch a vision of the possibilities inherent in cooperation and can interpret this to the public a great deal might be accomplished, if not, little good will result.

An initial meeting to which trustees, librarians, and reference librarians of this region should be invited might be largely devoted to the presentation of the need for cooperation and the maping of suggestions as to methods of affording mutual aid. At this meeting a simple question sheet which will elicit suggestions as to what aid each library could give to others and what help it would most like to receive could be distributed for early return and tabulation. Before the second meeting the results could be tabulated and then presented to the group and discussion on these findings could be encouraged. In this location a representative of the new Reference Services Division of the American Library Association might be secured to present its plan for chapters and the group might eventually consider whether it desires organization as a chapter or as a wholly

independent organization. In the first year the plan often used by the chapters of the Special Libraries Association, of meeting in different member libraries might be a good one, and in case this is adopted, each librarian should briefly discuss his own collection, service, and the problems met in connection with it so that the group will be constantly gaining increased knowledge of the resources of the region.

As the work of the organization develops, many plans and projects will require consideration. For instance, one might expect discussion of the provision of funds for telephone calls in connection with reference service, the purchase of copying machines and the best types to secure, the fees to be charged for copies of reference materials, the types of books, periodicals and documents which libraries will and will not lend each other, the use of courtesy cards introducing a patron of one library to the reference staff of another and asking that he be given reference aid; the form of references to be used in citing material on copies or in giving oral citations of material quoted over the telephone. Eventually such a group may wish to undertake for its own use, union lists of periodicals or union catalogs of new reference books or bibliographies which locate copies of works on a given subject of particular interest to the group. Subject specialization with a view to interlibrary loan and cooperative use is also a possible project for development by such a group.

After a few years of successful operation as a working body such an organization might be able to secure county support or support from some other source for a supervisory and searching staff to operate in the largest library of the group--perhaps Evanston in this case, and to search also in the Chicago libraries, or a newly organized Cook County library might take over the work and support it henceforth.

Of course it must be conceded that any plan of voluntary aid from one library to another is capable of abuse and especially one which includes libraries of various sizes. Smaller libraries and their patrons will gain the most from such a federation and the staffs of such libraries must take the responsibility for calling on their neighbors only when their resources are entirely inadequate. If it is found that certain libraries are guilty of making unreasonable demands on the resources and staff time of certain other libraries, or that they are referring questions which can be answered by such tools as the Reader's Guide, the World Almanac, or the Statesman's Yearbook, a conference between the librarians of the two li-

braries would be in order. Nor should this voluntary service be allowed to encourage smaller libraries to relax their efforts to build up more adequate reference collections. One project suitable for the organization of reference librarians to undertake, would be the creation of standard minimum lists of reference books for libraries in towns of different sizes, e. g. 5,000 to 10,000 population, 10,000 to 25,000, etc., these to be revised periodically. These would furnish a standard without limiting any library in its purchases and might serve to insure that each local library will be able to deal successfully with a large proportion of its ready reference requests.

As suggested above, an organization of this sort might also expose those assistants who through unfitness or lack of training are giving inadequate service with their collections and ought either to receive further training, be transferred to other positions, or be replaced by more competent staff members. Thus the association of reference librarians serving in such a highly populous and thickly settled district as northern Cook County ought to result in higher standards of both reference materials and reference service.

Only one example of possible cooperative action can be developed here and for this purpose the example of the writer's own neighborhood has been taken. However, county and regional developments of the same sort are everywhere possible. If every small library were in alliance with the libraries in its neighborhood or a part of a larger system, a large proportion of all referred questions could be answered within a hundred miles of their origin, others could be referred to state libraries, (general, historical, law, public health, etc.) or state university and college libraries, and the libraries of the largest cities within the state. A still fewer might have to be handed on to the national and departmental libraries in Washington. All large libraries even now answer many reference questions by mail and probably could without great inconvenience do somewhat more. If properly publicized a service of this sort ought to appeal to the imagination of the public and perhaps result in greater local and state support of public libraries.

A major responsibility of the several participating libraries would be the promoting of the reference service by making its availability and resources known to the public. Opportunities to talk on reference service and the cooperative program to civic and service clubs, to social and fraternal organizations, and to business and industrial groups should be invited. Good service is always justification for good publicity.

Finally, the results of the project must be commensurate with the time, money, and thought expended on it. Judicious scrutiny of the advantages and disadvantages of the concepts is necessary. Certainly the advisory board and the administrator will want to review the program and its purpose at intervals to assure practicability.

References

1. American Library Association. Public Library Service; a Guide to Evaluation, with Minimum Standards. Chicago, The Association, 1956, p. 7.

2. Ibid.

THE SPECIFICS OF INTERLIBRARY ORGANIZATION

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If, in bringing together the library patron and the material he needs, the librarian finds that he has exhausted the resources of his own institution, he turns to those of other libraries. In fact, it is taken for granted that he will do so; today we do not stop to realize that without library cooperation this would not be possible. There are, of course, many kinds of library cooperation: regional library centers, union lists, subject specialization, cooperative cataloging, exchange of duplicates, joint purchase of supplies, and interlibrary loans --to name but a few. All contribute to better library service, but this paper considers only those which affect reference work especially.

Among cooperative devices perhaps the first to come to mind is the union list. In the last seventy-five years the number of union lists in existence has multiplied greatly, and there are a number of reasons why they constitute so successful a type of library cooperation. In the first place, there is neither need for indefinite commitments on the part of the cooperating libraries, nor is it necessary for them to give up anything. The union list, on the other hand, has an immediate practical use for cataloging, for acquisition purposes, for weeding and for locating items either for direct consultation or for interlibrary loan.[1] It is probable, however, that the location function accounts for 80 to 90 per cent of the use made of union lists.[2] Another factor is that it is a matter of pride for a library's holdings to be included in a union list. In contrast, there are a number of drawbacks to such publications. Although checking holdings represents a considerable expense to participating libraries, lists soon become out of date. Some of them appear in very small editions, and there is "the danger of excessive multiplication of lists dealing with minute segments of knowledge."[3]

One might divide union lists into two broad categories: general lists and subject lists. The former includes such forms of material as serials, newspapers, and manuscripts,

as well as certain types of books (e.g., incunabula), while the latter consists of lists restricted to broad or narrow subject fields. In each category there are lists covering the entire country and those giving the holdings of more limited areas--regional, state, and local. Since the regional list may include from two to six times as many libraries in its area as appear in national lists, it provides a more intensive coverage.[4] The following may serve to exemplify the pattern outlined above.

GENERAL UNION LISTS

(1) National

Incunabula in American Libraries

International Congresses and Conferences, 1840-1947

American Newspapers, 1821-1936

(2) Regional and Other Limited Areas

Union List of Periodicals in the San Francisco Bay Region

Serials Currently Received in Southern Illinois

SUBJECT UNION LISTS

(1) National

Union List of Technical Periodicals in Two Hundred Libraries...

Periodicals in American Libraries for the Study of the Hispanic Languages and Literatures

(2) Regional and Other Limited Areas

Union List of Scientific and Technical Periodicals in the Libraries of Greater Cincinnati

Union List of Periodicals and Other Serial Publications in the Medical and Biological Science Libraries of the Greater Los Angeles Area

A special type of union list which seems to have developed in recent years is that which records items held by a particular group of cooperating libraries which may or may not be in the same immediate area--e.g., Periodical Holdings and Subscriptions in Eight Minnesota Libraries [Hill Reference, St. Paul Public, Carleton, St. Olaf and four colleges in St. Paul]; Union List of Little Magazines...[Indiana, Northwestern, Ohio State, Iowa, Chicago, Illinois]; A Union List of Serial Holdings in Chemistry and Allied Fields...[Emory, Georgia Tech, Florida State, Florida, Georgia, Miami]. The most commonly thought of list is that which records serial holdings; of these, the best known and most important is, of course, the Union

List of Serials. It has served as the model for many later publications. The first edition was issued in 1927, and some years later two supplements appeared. The second edition was published in 1943 and has also had two supplements covering the years through 1949. The present problem in regard to the Union List of Serials stems from the fact that what is, in effect, its current supplement, the Library of Congress publication New Serial Titles (with its predecessor Serial Titles Newly Received) covers only serials which began publication in 1950 or later. Yet the interdependence of libraries is nowhere more apparent than in serial resources, since no collection--not even the largest--has been able to assemble "even as many as half the serial titles in existence."[5] It is likewise obvious that libraries can no longer afford the cost of completely new editions of the Union List of Serials every fifteen years or so. The Joint Committee on the Union List of Serials, which has been studying the problem of the continuation of this important publication for a number of years with the objective of providing "comprehensive and up-to-date union-list records to supersede the earlier and noncomprehensive, noncurrent publications,"[6] proposes the creation of a Union Catalog of Serials at the Library of Congress; this would serve as a national bibliographical control for approximately 500,000 titles and in excess of 50,000,000 volumes. Utilizing this record's punched cards, new editions of the Union List of Serials could appear conveniently at twenty-five year intervals. Between them New Serial Titles would provide supplementary information on a current basis, with annual and quinquennial cumulations. To accomplish this the Joint Committee on the Union List of Serials seeks $2,673,222, all but $150,000 for the creation of a Union Catalog of Serials. The latter sum would be used for two closely related projects: (1) to reprint the second edition of the Union List of Serials, revised to correct errors which have crept into it and to add information which now appears in the two supplements ($50,000); and (2) to stimulate the consolidation of incomplete files by the exchange of materials among libraries ($100,000). Of the more than $2 1/2 million sought, it is interesting to note that subsidy to libraries for checking their files accounts for 36 per cent.[7]

The union catalog is another type of cooperation of great importance in enabling libraries to fulfill their roles as community centers of information. As in the case of union lists, one enterprise of special significance deserves comment: the National Union Catalog at the Library of Congress. A year ago this catalog contained nearly 14,000,000 cards in its main file;

in addition, there were over a half-million cards in four auxiliary files covering Slavic, Hebraic, Japanese, and Chinese publications.[8] These files record many millions of locations for books needed for research. Any consideration of this vital tool sooner or later leads to discussion of two large problems which have concerned librarians for a number of years. These are (1) completing and (2) publishing the Catalog. Since the western part of the country and selected major libraries in other regions are poorly represented, it would require an estimated $1,212,318 to provide for its "completion" by adding approximately 16,000,000 entries from the catalogs of selected university libraries, historical societies, research and special libraries, federal libraries and certain regional catalogs. Of these, approximately 1,500,000 would be new titles, the remainder representing additional locations.[9]

The question of the publication of the National Union Catalog involves both safety and availability factors. However, microfilming of the Catalog, accomplished in the period from March 10 to June 27, 1952, and financed by a transfer of $46,500 from the General Services Administration to the Library of Congress, has virtually eliminated the safety argument. This transfer took place under a program for the preservation of vital government records; Remington Rand did the actual filming. The project resulted in 2,385 rolls of microfilm which are for sale by the Library of Congress at $4.00 a roll (a total of just under $10,000),[10] and to date no purchases have taken place. It would appear that the inconvenience in using microfilm for locating titles, and the cost have greatly limited the appeal of the Catalog in this form. The question, then, of general availability remains; it has been estimated that the cost of publishing the National Union Catalog would range between $4,500,000 and $5,000,000, of which more than 50 per cent would be necessary for editing cards presently in the file. In the light of this substantial sum, and the seeming impossibility of obtaining funds from Congress, philanthropic foundations, or other sources, the Sub-Committee on the Reproduction of the National Union Catalog of the American Library Association's Board on Resources of American Libraries asked to be dismissed in 1953 with its report to guide what was hoped would be more successful future efforts towards publication.[11]

In the course of considering the problems of publication of the National Union Catalog, there arose the question of the possible expansion of the Library of Congress Catalog--Books: Authors into a current national union catalog. Such a project

had appeal not only because of the immediate prospect of a published bibliographical tool, but also because, by giving the existing catalog a "cut-off" date, it promised to bring to an end its seemingly endless expansion and thus to pave the way for its ultimate publication.[12] After investigation by the Board on Resources, its Sub-Committee, and the Library of Congress, a questionnaire was sent in 1955 to all subscribers to the Library of Congress author catalog. Seventy-five per cent of them responded, and, of these replies, nearly ninety per cent were favorable.[13] On July 4 of that year, there was an open meeting on the question at the Philadelphia Conference of the A. L. A., and on July 7 the Board on Resources passed a resolution recommending the publication of an expanded author catalog at the earliest possible date. In January, 1956, this expansion began for 1956 and later imprints; in July, reflecting the publication's new scope, the title became The National Union Catalog; in 1957, the first annual cumulation appeared. The success of this venture can be judged by the fact that in 1956 there were 831 domestic, 4 territorial, and 102 foreign subscriptions--a total of 937. The domestic subscriptions were divided by type of library as follows: 551 college and university, 148 public, 87 federal and state, 27 special, and 18 industrial organizations.[14] Obviously this publication represents a significant milestone in American library cooperation, not only because it makes available the current imprints added to the National Union Catalog but also because it demonstrates the feasability of isolating one phase of a large and complex bibliographical problem and solving it successfully. It is to be hoped that some way will now be found to publish the pre-1956 portion of the Catalog.

There are, of course, a great many other union catalogs in the United States. In 1942, A. B. Berthold listed 117, of which just under half were Library of Congress depository catalogs, expanded or unexpanded. Other types include regional, local, subject, and exchange catalogs.[15] The 'thirties witnessed a great increase in the number of union catalogs--the result of the federal relief programs which provided much labor, available without cost to libraries.[16] There have been no new union catalogs since the war, perhaps on account of increased labor costs, uncertainities about the size of regional units, or other factors; moreover, there is a growing question as to the value of the union catalog particularly in new situations where a great deal of time and work would be necessary to compile it, and related to this is the question of whether newer means of communication make it unnecessary. Flora Belle Ludington

says, "...in a fairly compact geographical area a telephone call, a trunk telephone line, or even a long distance call may well be cheaper than a union catalog and furthermore if you communicate directly with your neighboring library in your group your filing is always up to date."[18] However, existing union catalogs operated in connection with such bibliographical centers as those in Denver, Seattle, and Philadelphia are but one of the services which the centers provide and for which they receive local support. Such catalogs are here to stay, and the question is how they can best serve the national interest rather than whether their existence is theoretically justifiable.

The uses made of the union catalog are many, but the most obvious and most important is the location service. The National Union Catalog last year, for instance, searched 19,451 titles and located 14,382 of them.[19] Such service includes not only locating for direct borrowing by the user, or for interlibrary loan, but also for the reproduction of material. A union catalog can contribute to regional development; it can serve as an aid in cooperative purchases, in the division of fields for acquisitions, and in the completion of broken sets and partial files. Furthermore, it can contribute to the national picture by supplying the National Union Catalog with titles and by searching books not located in Washington. Miscellaneous functions include providing answers to bibliographical reference questions, aid to order librarians, assistance, appraisal, and possibly even other services.[20]

Descriptions of resources and guides to special collections constitute another useful tool. They contribute to library cooperation in several ways: by assisting "scholars, research workers, and students to find the best materials in their fields, particularly by locating and describing collections whose value is not sufficiently known.[21] In other words, here are keys to material which may be neither fully cataloged nor classified, nor described in other sources. By showing the nature and extent of present resources, they may also provide a basis for increased cooperation. Finally, when a specific title wanted for interlibrary loan cannot be located, the guides may, by their indications of subject strength, suggest a library likely to hold the volume. Indeed the relationship between guides and union catalogs has been called a complementary one: "Whereas union catalogs list and locate specific titles and editions, the surveys of resources indicate subject areas in which libraries are strong."[22] Of course, this statement applies to union lists as well.

The types of guides are many. They describe collections on the national, regional, state, and local levels. In addition, we find surveys of individual libraries, of subject areas, and of types of materials.[23] Quite a few such guides were published in the 'thirties and 'forties, and A. L. A.'s Board on Resources of American Libraries has done much to stimulate this activity. In 1938, the first attempt "to study all classes of library research materials distributed over a large region"[24] described the holdings of southern libraries, while in 1940 the first of a number of articles on significant current acquisitions of American libraries appeared. This series, "Notable Materials Added to American Libraries," covered the years, 1938-39 through 1948-49; six reports were published in eight parts in various issues of the Library Quarterly from 1940 to 1951. The possibility of a revival of this series was investigated in 1954, and most libraries expressed interest. Data for the five years following the last published report--i.e., 1950 through 1954--were assembled and are in process of preparation. Scheduled for winter publication by the Bowker Company is Subject Collections, described as "A Guide to the Special Book Collections and Special Subject Emphases in American Libraries, Public, College, and Special."[25] However, since this information was collected by questionnaire, requesting little more than the subject memorial name, the name of the curator, number of volumes, and acquisition book budget, it is to be presumed that this will be a directory rather than a complete guide to resources. To fill the need for a comprehensive work, Robert B. Downs has proposed the preparation of a new guide to special collections or areas of concentration in American libraries. Such a compilation would include all regions of the country and all the types of libraries containing research materials of national significance.

Other than a general survey of the six Georgia and Florida libraries cooperating in the Southeastern Interlibrary Research Facility,[26] there has been little done in this area in the last few years, in spite of the fact that large numbers of important libraries have also been inactive in publishing.[27] A number of difficulties encountered in the preparation of such descriptions may help to explain the situation. One of these is the problem of timeliness, which stems from the fact that, although such surveys require a great amount of labor for preparation and a considerable sum for publication, they rapidly go out of date. There is no easy solution to this problem, although there are certainly a number of possibilities. One of these

might be to plan from the beginning to issue new editions at definite intervals. The preservation of the results of the basic investigation, and definite arrangements for some library staff member to have responsibility for noting significant additions, changes in acquisition policies, gifts, etc., would reduce the cost of new editions, while nearprint processes would also make it possible to avoid large expenditures for printing. Between editions, supplementary reports might be prepared. Libraries issuing a bulletin or journal might investigate the possibility of utilizing it as a vehicle for the publication of a guide.[28] The University of North Carolina's Guide to Special Collections furnishes an interesting example of some of the newer techniques. It is issued in loose-leaf, mimeograph form, because it will receive additions and revisions; descriptions of special collections are filed under appropriate subject headings, and the Guide is available at various public service points throughout the library.

The union list, the union catalog, and the guide to resources are all important kinds of cooperation, and upon them the interlibrary loan relies heavily for assistance in locating titles to be borrowed. The interlibrary loan itself is, of course, one of the oldest and most extensively used forms of library cooperation, as shown by the growth of such loans in the past twenty-five years. Between 1927-28 and 1952-53, the number of transactions handled by eleven universities, (Chicago, Cincinnati, Columbia, Cornell, Illinois, Louisiana, Michigan, North Carolina, Ohio State, Princeton, and Stanford) increased 483 per cent in items loaned (from 7,214 to 41,749) and grew 322 per cent in items borrowed (from 4,014 to 16,935).[29]

The purpose of the interlibrary loan is, of course, "to place every book, manuscript, archive, or other graphic record within the reach of persons who need them."[30] The operation of such loans is governed at present by voluntary adherence to the General Interlibrary Loan Code 1952, which provides a statement of practices covering such features as responsibility, conditions of loans, scope, expenses, information required, shipment, and insurance.[31] Sixty-two per cent of the academic, special, and public libraries surveyed by C. H. Melinat follow the Code, plus their own regulations, but it is significant that only 20 per cent of them follow it without variation. Public libraries tend to use their own regulations more frequently, and the Code less frequently, than college and university libraries.[32]

In a discussion of interlibrary loans, a number of areas

call for comment. First, one might mention the tendency for interlibrary loans to be a one-way street for large research libraries. Small libraries are sometimes justly criticized for requesting from the Library of Congress, Harvard, and the University of Chicago--to name but three examples--titles which they might locate in libraries closer at hand and thus would need to depend on these and other large institutions only for items which they could not find in their own region. On the other hand, a state university usually feels an obligation to fill requests from other institutions supported by its state. Although large libraries generally interpret this problem liberally, the situation would undoubtedly change very rapidly if smaller institutions abused the privilege--if, for example, a college offered courses for whch it had inadequate resources and expected to borrow many titles on interlibrary loan.

A second area for consideration is the material itself; here one sees attitudes changing when a lender becomes a borrower. Melinat reports, "Libraries usually have fewer restrictions on the types of materials they will lend than on the types they will attempt to borrow. Libraries lend oftener than they borrow: books in print, individual volumes from sets, government documents, material of unusual size, and unbound newspapers. They tend to attempt to borrow oftener than lend: manuscript theses, unbound periodicals, valuable books, rare periodicals, rare books, reference books, and rare newspapers."[33] University libraries have fewer restrictions than public libraries, but here the trend is certainly towards loaning when the library wishing to borrow explains the reasons for its particular need.

The third area for discussion is verification, which presents perhaps the largest single problem. There are two senses in which we may use this term: (1) the bibliographical details of the publication itself and (2) the location of a copy. In Melinat's survey, 87 per cent of the libraries reported that they attempt to verify and to complete citations before sending them out, but 47 per cent of lending libraries are not satisfied with the references sent to them.[34] Much can be done, as Mary L. Lucy indicates, if libraries will require readers to record the places where they saw references to titles they want, thus enabling the interlibrary loan librarian to have a logical starting point for verification.[35] Requesting items not in another library's collection obviously wastes time on the part of both libraries, the asking and the asked. Libraries should certainly do all in their power to verify a title's location by consulting regional union catalogs and bibliograph-

ical centers, the National Union Catalog at the Library of Congress, and guides to resources, if the previous two fail. This is preferable to hastily sending off requests to the Library of Congress on the assumption that it probably has the book. Moreover, careful checking may also reveal the existence of copies in nearby libraries, thus (as already pointed out) taking a portion of the burden of interlibrary loans off the larger and better known institutions.

Fourth, we might mention the increasing use of substitutes for actual loan. To the familiar photostat and microfilm, technology has now added xerography and other processes, all of which offer possibilities of avoiding the lending of material itself. Just over the horizon lies facsimile transmission, which, if cost were reasonable, would eliminate still more borrowing. Closed circuit television offers another medium. Melinat found that 68 per cent of the libraries surveyed could provide photostats, and 49 per cent were able to supply microfilm, but only a small number report that such services materially reduce the amount of material sent out, although 77 per cent of the borrowing libraries order reproductions when the actual material is not lent.[36] Certainly we must be more willing to accept substitutes for actual loan, and reference librarians should encourage patrons to do so, especially when the item in question is a short piece or journal article. In doing this, however, we should ascertain that the photographic service is rapid enough to avoid long waits, because a substitute will not be popular with readers if more time is required to procure it than to borrow the original. The excellent service offered by the New York Public Library might well serve as a model; ideally a reproduction should be at least as readily and as quickly available as the original. Cost, ranging from the relatively low price of microfilm to the photostat and other processes which become expensive when a large number of pages are required, also affects the demand for substitutes. More libraries could offer to buy and add to their collections or give to users reproductions of needed material.

Finally we come to the question of cost. As computed in various studies, the cost of an interlibrary loan ranges between $1.11 and $7.00; the effort made by different libraries to execute requests probably accounts for the variation.[37] It is a common practice for the borrowing library to pay the transportation fees, but in addition the lending library may charge a fee, although even this does not pay for the entire service. Nearly one-half of the libraries which borrow absorb any fees, but many public libraries charge the cost back to the

patron.[38] Academic libraries facing increasing budgetary problems may gradually come to charge patrons. Miss Lucy suggests that interlibrary loan costs can be reduced without reducing service through such devices as the general use of the five by eight inch Standard Interlibrary Loan Request Form, by annual bills for postage, and by better verification[39]--all pleas echoed in Phyllis Schneider's recent article.[40] Obviously the more an interlibrary loan resembles an ordinary charge made at a circulation desk, the lower its cost will be; in this direction we should constantly aim.

By way of conclusion, it seems appropriate to make some general observations on library cooperation. In this, as in other fields, some ideas are better than others; it is sometimes necessary to abandon schemes which do not accomplish results commensurate with the time, energy, money, and thought that go into them. In order to avoid this, one might examine the record of the substantial amount of library cooperation that has already taken place in the United States. It constitutes a body of evidence from which certain principles may be drawn. It appears that cooperative ventures have succeeded when there is proximity among institutions not too much unlike in aims and resources; when cooperation is not proposed as a substitute for inadequate library service (each participant makes a contribution above and beyond the basic job it is already doing); when cooperative agreements are positive (each library accepts a definite responsibility but at the same time retains freedom of action in other areas); when highly specialized subject areas and/or little used kinds of materials are involved (the folly of duplicate individual efforts is apparent); when proposals are realistic (this may mean settling for a definite and limited idea rather than a vague and grandiose one). With these principles in mind, one might prepare a list of questions to be asked about a new proposal for cooperation; if they cannot be answered affirmatively, it might be well to pause and re-examine the proposal. (1) Is the problem one which seems to be solved better or solved only with the cooperative approach? (2) Have alternative methods of solving it been carefully considered? (3) Do the strong features outweigh the drawbacks? (4) Is there accord on the underlying objective? (5) Is a workable organization proposed? (6) Will adequate financial support give the scheme a fair trial? Finally, let us remember, as Robert B. Downs has pointed out, that "...cooperative enterprises have vastly strengthened American librarianship."[41] They can and should continue to do so.

References

1. Downs, Robert B.: American Library Cooperation in Review. College and Research Libraries, 6:407-415, Sept. 1945.

2. Joint Committee on the Union List of Serials. A Permanent Program for the Union List of Serials. Washington [Library of Congress] 1957, p. 2.

3. Downs, op. cit.

4. Joint Committee on the Union List of Serials, op. cit., p. 9.

5. Ibid., p. ii.

6. Ibid., p. iii.

7. Ibid., pp. iii-vi and passim.

8. U.S. Library of Congress. Annual Report...for the Fiscal Year Ending June 30, 1956. Washington, The Library, 1957, Appendix IV, p. 85.

9. Association of Research Libraries. Minutes, 40:39-40, Feb. 1953.

10. U.S. Library of Congress. Annual Report...for the Fiscal Year Ending June 30, 1952. Washington, The Library, 1952, pp. 74, 146.

11. David, Charles W.: The Reproduction of the National Union Catalog. In: Book and Serial Union Catalogs: A Symposium. College and Research Libraries, 15:20-26, Jan. 1954.

12. David, Charles W.: Background and Significance of the Proposal. In: Proposed Expansion of the Library of Congress Catalog--Books: Authors into a Current National Union Catalog, 1956. College and Research Libraries, 17:24-28, Jan. 1956.

13. Schwegmann, George A., Jr., and Stevens, Robert D.: The Proposal for a Current Author Catalog of American Library Resources. Ibid., pp. 28-34.

14. U.S. Library of Congress. [The National Union Catalog, Analysis of 1956 Subscriptions. (Processed) Washington, The Library] 1956.

15. Berthold, Arthur B.: Directory of Union Catalogs in the United States. In: Downs, Robert B., ed.: Union Catalogs in the United States. Chicago, American Library Association, 1942, p. 351.

16. Downs, op. cit., ref. 1.

17. McAnally, Arthur M.: Recent Developments in Cooperation. College and Research Libraries, 12:123-132, April 1951.

18. Ludington, Flora Belle: Essentials of Cooperation. South Dakota Library Bulletin, 4:66-71, Oct.-Dec. 1953.

19. U.S. Library of Congress. Annual Report...1956, op. cit., ref. 8.

20. Stone, John P.: Regional Union Catalogs: A Study of Service Actual and Potential. In: Downs, op. cit., ref. 14, pp. 147-175.

21. Downs, Robert B., ed.: Resources of New York City Libraries. Chicago, American Library Association, 1942, p. xii.

22. Wilson, Louis R., et al.: The Library in College Instruction. New York, H. W. Wilson, 1951, p. 57.

23. Jackson, William V.: A Handbook of American Library Resources. Champaign, Ill., Distributed by the Illini Union Bookstore, 1955, pp. 53-60.

24. Downs, Robert B., ed.: Resources of Southern Libraries. Chicago, American Library Association, 1938, p. xi.

25. Lee Ash Edits Reference Book. Library Journal, 81:2926-2927, Dec. 15, 1956.

26. Harwell, Richard B.: Research Resources in the Georgia-Florida Libraries of SIRF. Atlanta, Published for the Southeastern Interlibrary Research Facility by the Southern Regional Education Board, 1955.

27. Downs, Robert B.: American Library Resources, a Bibliographical Guide. Chicago, American Library Association, 1951, p. 2.

28. Jackson, William V.: The Interpretation of Public Services. Library Trends, 3:188-201, Oct. 1954.

29. White, Carl W.: Services to Scholars. Library Trends, 3:148-163, Oct. 1954.

30. Wilson, Louis R., and Tauber, Maurice F.: The University Library; The Organization, Administration and Functions of Academic Libraries. 2d ed. New York, Columbia University Press, 1956, p. 450.

31. General Interlibrary Loan Code 1952. College and Research Libraries, 13:350-358, Oct. 1952.

32. Melinat, Carl H.: Interlibrary Lending. Library Trends, 2:573-580, April 1953.

33. Ibid.

34. Ibid.

35. Lucy, Mary L. Interlibrary Loans in a University Library. College and Research Libraries, 13:344-349, Oct. 1952.

36. Melinat, op. cit.

37. Wilson and Tauber, op. cit., pp. 454-455.

38. Melinat, op. cit.

39. Lucy, op. cit.

40. Schneider, Phyllis: Interlibrary Loan Co-operation --All the Way. Library Journal, 81:2921-2922, Dec. 15, 1956.

41. Downs, Robert B.: Realistic Considerations in Library Cooperation. The Southeastern Librarian, 4:114-122+, Winter 1954.

COST OF INFORMATION SERVICE

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Any survey of the literature concerning the cost of reference service reveals the fact that the subject is one which has been much discussed but without arriving at any very generally accepted conclusions. About 40 per cent of the writing on the topic is devoted to remarks on how ridiculous it is to think that reference and information service is measurable; about 30 per cent on how ridiculous the results are where it has been attempted; about 20 per cent on reporting results (with many apologies for doing so); and the remaining 10 per cent on straightforward statements of procedures, limitations, and valid interpretations. One of the great difficulties seems to be the confusion or misunderstanding of such terms as "measurement," "cost," and "value." The suggestion that reference and information service can be measured is immediately drowned out with a recital of all the variables of personnel, clientele, physical layout, etc. These have nothing to do with actual "measurement." They do have everything to do with the use to which the measurement is to be put. "Measurement" is only the comparison of a standard unit with some entity and does not include the comparison of one entity with another. Similarly, one hears the objection that the "value" of a reference answer bears no relation to the time spent in finding it, and therefore why try to do anything? The basis of the objection is valid, indeed; there is no relationship between value and cost. But the objection itself is invalid in its assumption that valuation is the purpose of cost analysis. A cost study attempts, purely and simply, to find out what something costs. What it is worth is something entirely different. Information service can be measured quantitatively and the costs determined but comparisons cannot be made with the data; or the "value" measured.

The subsequent question is: "Yes, you can [measure reference costs], but should you?"[1] Lord Kelvin once remarked, "I often say that when you can measure what you are speaking about, and express it in numbers, you know something about it;

but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely, in your thoughts, advanced to the stage of science, whatever the matter may be." It should be of interest to any administrator to know what happens to the funds he disburses and what the various operational costs of his organization are. Beyond this basic curiosity, there are many practical uses for these figures. Budget preparation and defense obviously benefit from the availability of concrete, properly defined, and interpreted cost figures. One's impression of the proportionate expenditures for various functions may receive a rude jolt from careful measurements of time spent. Any decisions on expenditures depend on a knowledge of costs.

The determination of unit costs involves the establishment of the relation between the time spent on a given function and the amount of work performed. To obtain the necessary figures for the calculation, a program of work and time study is essential. Cost-finding is but one of the many benefits of such study. Through indicated staff and schedule adjustments, it is possible to improve the balance of work load and personnel, both in a single department and between departments. Performance in comparable operations can be checked, with elimination or improvement of relevant factors. The need for a particular change, whether major or minor, may become clearly apparent; and the results of such change may be checked in cold numbers rather than by non-objective feelings. This is true of such factors as shifts or increases in staff, as well as the addition of new reference materials or procedures. It is possible to spot trends in information needs, to effect at least a partial check on efficiencies, and (given the proper data) to correct gaps in the book collection. In one instance, it was found that 20.6 per cent of the questions were of the "where is" type, and a few judiciously placed signs did wonders for the work load.[2, 3] Any conscientious examination of exactly what is done, when, where, and how long it takes, can hardly fail to discover one or more changes to improve the production or morale.

Many of the points cited against information cost studies do exist. However, the majority refer to the use of results in comparing information service in different libraries or in establishing "norms." They mention the variations in professional competence, adequacy of book collections, accessibility of catalogs and reference tools, the abilities of users to find their own answers, provision of special reference materials

(pamphlets, pictures, documents), the level of clientele, and other elements which cannot be quantitatively evaluated and which most certainly do affect the reference department output. It is quite true that such factors make strict comparisons impossible between libraries. However, they are not relevant to the actual measurement of cost in a single library.[4, 5]

Fremont Rider answered several objections in reporting his early work in library cost accounting. He felt that many of the techniques used in businesses could be employed by libraries.[6] The so-called "bookkeeping" often found in libraries is not adequate for cost studies; it neglects such items as depreciation, interest, and capital investment, and is not kept in a way which provides ready answers. However, the real culprit is deliberate ignorance of what is required to give meaningful figures, and the data required are not as complicated as many librarians plead. The mere keeping of some statistics is not sufficient; these must reflect real output if true costs are to be obtained. The cost of maintaining the records is not likely to prove significant, when sufficient care is given to selection of methods, basic data needed, and explanation to the staff. A last argument sometimes found--surely not among serious professional people--is that it is better to "let sleeping dogs lie."

Failures of cost systems are not due to the fact that "libraries and librarians are different." Some adaptation of business methods may indeed be necessary, but given adequate and accurate procedure, library practices are as subject to examination as those in the Western Electric Company. Similarly, the proper interpretation of cost figures must be made. As R.A. Miller and others point out, the determination of unit costs does not, in itself, solve any problems, financial or administrative; it merely helps, as they say, to "dimension" them.[7, 8]

Since 1950, considerable mention has been made of "performance budgeting." More and more libraries are adopting it, especially those at various governmental levels; Hoover Commission recommendations brought about its use in the federal government in 1951. Essentially, this method makes primary allocation of costs according to function performed, rather than by item of purchase. At the District of Columbia Public Library, accounts were formerly kept on conventional lines: personnel, travel, rent and utilities, printing and reproduction, supplies and materials, equipment, and capital expense. Under performance budgeting, the primary division of accounts shows administration, processing, public service,

buildings and grounds, and capital expense. The headings formerly used are now found as subdivisions under each of the new, function-oriented divisions. This arrangement concentrates attention on the character of work performed, not on materials and services purchased.[9] The preparation of this kind of budget as well as accounting of current expenditures requires the accumulation of exactly the sort of data needed in calculating unit costs; only a refinement of terms measured is required, so that the true output of each functional division is known.

Unit cost determination depends on two things: what and how much was done; what did it cost. Each of these elements contains many points for argument and to some extent, arbitrary decision. What shall constitute a unit of reference or information service? Where does reference work end and some other activity begin? Do clerical assistants ever perform true reference work? These and dozens of other questions account for the confused thinking on this business and for the difficulty in using results in making comparisons. At present, there is no standard of what is meant by "reference" or "information" service. Each library must establish, after careful analysis, the types of services its information staff performs, and the most workable sizes for units of work in each service. The small library may have fewer services and fewer units of measurement than the large; the need for specific data in a given situation and the feasibility of gathering that data, will dictate these decisions. As a beginning, it is suggested that each staff member keep a random list of his operations for a week or so. At the end of this time, in consultation with the supervisor, the lengthy list can be organized into areas and related groups. This simplifies record keeping, which is best done by groups--for example, "filing" of whatever kind. Assigned codes for these operations, when once familiar to the staff, makes the process even easier.

The one service which is provided by all reference departments is the giving of information, in both large and small quantities. The most common practice is to record the incidence of questions asked and/or answered, often distinguishing between in-person and telephone categories. One library subdivides its inquiries into directional, instructional, advisory, reference, and search questions.[10] Other libraries may restrict their categories to but one or two of these, depending on the variety and frequency of occurrence. Generally, separation is made between questions not requiring use of bibliographic tools or collections, and those utilizing them in greater or less

degree. Additional reference services tabulated may include bibliographies compiled, interlibrary loans processed, talks given, and other public relations work.[11, 12]

The units chosen for measuring the amount of each of these services performed depend on the frequency of occurrence. "Time spent" is the usual distinguishing feature, if any, for reference questions. Some libraries merely count the total number. W.O. Pierce recommends as many as four groupings: those requiring less than 5 minutes, 6 to 14, 15 to 29, and over 30 minutes.[13] Units for other services are simple and obvious: number of bibliographies compiled, number of loans processed, number of talks given, etc. Each of these might conceivably be divided according to time spent. Services frequently performed, with considerable variation in time and effort, should be provided with a large range of work units, so that the results will accurately reflect the total work done, since an average time is not particularly meaningful. Indication of subject areas, number of volumes used, actual questions and answers, and subject questions not answered are refinements which add to the value of a work study but are not specifically relevant to the cost. In order to obtain really valid work units, H. N. Peterson reminds us that such units must: (1)be countable; (2)represent true output; (3)reflect work effort, not be just a pure number; (4)be consistent within the organization and in time values; and (5) use familiar terminology.[14]

Thus far, only the amount of work performed, in units of output has been reviewed--so many five-minute questions, so many interlibrary loans processed, so many individuals instructed in the use of reference tools, so many thirty-minute searches, and so many bibliographies compiled. Next the amount of time spent must be determined. The only way to record time for accounting purposes is by means of a diary--for example, a single sheet for each day for each person, with spaces for time down the left side; designation of type and unit of work run across the top, with a column for non-productive time, such as personal, phone calls, etc. (See Figure 1.) The time and work units may be printed on the sheet, or filled in. The "Time" periods at the left are best left blank, but the type of work can be preprinted, with number of actual units to be filled in. Thus if three loans are processed from 10:45 to 11:05 a.m., the from-and-to time is entered, with the figure "3" noted in the loan column. These tabulations may be transferred to cumulative sheets for each person, making final use of the data easier. This bookkeeping operation (transfer to

Figure 1.

Time Sheet for Recording Reference Operations

From	To	Time	Information Minutes spent				I.L.L.	Bibliographies Minutes spent		Non-productive	Subject, Number of Volumes Used, Comment
			0-5	6-15	16-29	30+		0-15	16+		
TOTALS											

summary sheets) for one department of fifteen persons takes about half an hour a day.

Most libraries keeping only the statistical record of quantity, do so on a continuous basis; some which keep time records also do so continuously but this is not usual except where a streamlined procedure has been devised or the data are required for accounting records. Many undertake a periodic sampling, --for example, the 15th of each month, a full month at five year intervals, or the first week of each month.[15] Continuous recording has been recommended (1) to eliminate the inherent differences in questions; (2) to eliminate the differences in reference ability and recording accuracy; and (3) because it is claimed that the larger the total number of units, the less significant the individual differences become.[16]

After translating the services and time spent into figures, the average time required for each unit of work performed is found. A determination of costs is the next step and there are arguments in this area also. The first record of library cost accounting dates from 1876, when Cutter gave the figure of 50¢ as the cost of cataloging a volume.[17] Generally speaking, the elements making up total cost include labor, materials, and overhead. The proportion attributable to each element varies in business. As Rider points out, printing has dominant labor costs; in textiles the materials are highest; while overhead in a hydropower plant runs ahead of both labor and materials. His opinion was that overhead came first in his library, with labor next, and materials last. Today, it is common to add 100 per cent to labor cost to cover overhead and materials, or 50 per cent to cover overhead alone.

Direct labor costs are the most obvious utilization of total time and unit time figures. The first can be used when the total cost of a department is wanted, the second when a breakdown by operation is desired. But even here, what constitutes the cost of an employee's time must be decided. One study figures the hourly rate by dividing the annual salary by the hours worked in fifty-two weeks plus one day.[18] Another figures it on the basis of eleven months, thus increasing the hourly rate to cover paid vacations.[19] A third takes into account all the fringe benefits, adding to the annual salary the cost to the library for social security and group insurance, and dividing by the hours in fifty-two weeks of work, less vacation, less paid holidays, less half the allowable sick leave. This increases the straight hourly rate about 12 per cent and gives a very close picture of the total unit labor costs to the library; some of the elements here are sometimes considered as ad-

ministrative overhead, although actually they are directly related to employment.

Some cost studies stop after determining the direct labor involved in operations. Having calculated the hourly rates for each employee, the unit operational costs for that employee are obtained by multiplying by unit time figures. To be even more accurate, the costs of unproductive time may be distributed over the productive time, since all has to be paid for but only part brings results. This step may not be taken, although the factor is accounted for if only total cost of a department is determined from total time spent. However, the amount of non-productive time must be known to have an accurate picture of the individual productive operations.

The study should go beyond the mere labor factor to obtain a true figure of an institution's total costs. Materials and supplies are not difficult to bring into the picture. Only certain operations utilize forms, stationery and the like, and the allocation of pennies involved in each operation can be made if desired. The amounts are usually so small that it easily may not be worthwhile (Inter-Library Loan forms, 2 1/2¢), although the total departmental costs should be available for performance budgeting.

The tricky part and the one in which there is much variation in practice, is the determination and allocation of overhead. In itself, overhead may contain items for salary and material which are not chargeable to functional departments. Judgment must be used in deciding whether to charge particular costs to departments, or keep them in an unassigned lump sum. These include telephone, trucking, postage, travel, and salaries of personnel in administrative positions such as a personnel officer, payroll clerk, or even a chief librarian. One method of distributing all such costs is to allocate them proportionally according to departmental payrolls; admittedly, there are instances where this might be unjust, but generally it is thought to be a fair procedure.

Another group of overhead items relates to the building, its maintenance and protection, such as insurance, heat and light, janitorial labor and supplies, and repairs. If the building is rented, the rent may include some of these elements. If not, interest on capital investment and depreciation must be considered. The allocation of such costs as these bears little relation to services performed or to the people involved. One method used which is quite reasonable is based on the proportionate number of cubic feet occupied by the various departments. Getting such costs down to the unit operational cost

level is the ultimate step, and here the distribution may be according to the total time spent within a department on a certain function, divided by the number of units of that function produced.

It is a matter of judgment how far each library may wish, or be able, to carry out these costing processes. All of the steps outlined can and have been applied in one situation or another. Almost none of them are completely defensible or airtight. The real or imaginary distinctions between professional and clerical operations have not been mentioned for these have no bearing on the total cost picture. However, they do have a bearing on unit costs and on the interpretation and use of the work study results. Similarly, no mention has been made of the cost of book and periodical collections, reference tools, and binding. Each library must decide whether to allocate such costs directly by subject or functional department, or treat them as capital expenditures subject to depreciation, obsolescence--or even appreciation--with appropriate assignment to overhead and some system of allocation therefrom. Most of the above points are matters of using common sense and careful analysis, and of remembering that the purpose of any cost analysis is to show the real costs of each article or each unit of service produced. In that light, many of the supposed complications are rather easily settled. These costs can be worked into a formula to determine the cost of a five-minute reference question.

The real complication arises when the figures are taken out of context and applied to an entirely different situation. This is where the danger lies and from it most of the criticism is derived. Some very humorous paragraphs have been written, comparing the $1.37 it costs to answer a question in one place and the 33¢ in another. It was thought ridiculous for Emma V. Baldwin and W. E. Marcus in 1941 to find that in thirty-seven public libraries, the average question took 5.4 minutes to answer and cost 6.8¢.[20,21] The ridiculous, or perhaps meaningless, part is the averaging of all the questions in thirty-seven public libraries. The salary of 1.3¢ per minute isn't funny--that was the rate of pay in 1941. As Rider has stated, for averages there must be many libraries, a long period of time, and many units--and even then the figure is not really useful, just a curiosity; real costs are not averageable, they must be for each individual library, and mean nothing except as the conditioning factors are known.[22]

The proportion of an institution's total expenditures charged to reference and information services likewise must

be examined with care, although there is likely to be greater conformity here--perhaps, plus or minus 50 per cent, instead of 2000 per cent as with the cost of answering questions. In their 1941 survey Baldwin and Marcus[23] found that 7.5 per cent was allocated for reference service, based on average time distribution (not the same as cost distribution) for the thirty-seven public libraries. For academic libraries, I. T. Littleton made a study in 1956, covering sixteen large college and university libraries. He discovered that the median staff time assigned to reference work was 5.95 per cent, and the median salary distribution was 6.5 per cent.[24] The John Crerar Library's payroll reveals that about 8 per cent goes to persons assigned primarily to free reference service; perhaps another 10 per cent is accounted for by the staff giving reference service on a fee basis, though they are self-supporting and are not covered by general library income. Since John Crerar is a large research library the 18 per cent total seems relatively justifiable. However, a recent job study resulted in some interesting time records. The principal reference librarian in one department spends but 37 per cent of his time in direct public service, including interlibrary loans; 26 per cent is devoted to book selection and administration; 20 per cent to matters connected with photocopy problems; and 17 per cent to clerical operations. This illustrates the revealing nature of time records. The 8 per cent shown by the payroll for free information service may drop considerably under the influence of time studies.

There appears to be some degree of correspondence in the figures on proportion of total costs, although the areas defined as "reference" or "information" in these surveys differ considerably. In general, technical processes eat up 30 to 35 per cent, and circulation about 30 per cent of the income in public libraries and 10 to 20 per cent in college and university libraries. Again, figures on proportions, like departmental and unit costs, must be judged wholly in conjunction with the local conditions. Open shelves vs. closed shelves, popular vs. research, downtown vs. suburbia, academic vs. public vs. special--these and many other factors must be weighed when considering the meaning of any report, be it statistical, cost, proportion, or any other type.

To complete the picture of reference service costs, cooperative information services, on a local as well as national level, must be considered. In some cases these costs are easier to determine than the others but their meaning is no clearer. The eighteen member libraries of the Midwest Inter-

library Center pay approximately $90,000 per year for its operation, and the individual assessments range from about $1,500 to about $10,000. These are based on a formula taking cognizance of certain budgetary figures, the number of doctorates awarded, plus flat fees.

The MILC program is the most fully developed of the few such interlibrary projects now in existence. A four-college Minnesota group has thus far been subsidized for development of the over-all plan, and have each contributed the labor of checking periodical files for their union list. Figures on real costs are not cited--seldom are they known in such projects, unless particular care is exercised in keeping track of time spent.[25] K. D. Metcalf's proposal for a Northeastern regional library envisioned $1 million to start (MILC had more than that), $100,000 for the initial shipments, and $55,000 a year after that.[26] These figures illustrate the order of magnitude when cooperation gets to the point of building buildings and acquiring materials. How much of these costs is strictly "reference service" is difficult to know. Some offer professional assistance, others offer purely storage or acquisition-cost sharing as primary benefits. The other examples of regional organization of services and the various bibliographic centers have in them elements of pure reference cost, as well as non-reference costs--just as are found in a single library. What the exact costs are is hard to ascertain but cooperation can cost as much the library is willing to pay. The big plans run to big money, even when shared. The National Union List of Serials would probably now cost several million dollars to revise completely. For example, it cost hundreds of dollars for each of 316 libraries to provide Chemical Abstracts with holdings for its List of Periodicals. The national Union Catalog at the Library of Congress, another of the few cooperative efforts on a countrywide scale, is probably the least expensive to individual libraries, though the Library of Congress itself bears the greater part of the cost. Yet cooperative reference service can be had at relatively small cost on a comparatively localized basis. A group of Virginia and District of Columbia libraries have established such a service with only a discussion meeting and frequently renewed contacts required; reference requests are referred on a planned basis to the most logical source.[27]

The most frequently given example of cooperation is interlibrary loans, and how much actual reference service is provided depends on the individual transactions. Basically, it is an extension of the circulation process, and the reference work

is equivalent to that performed in assisting a reader to get exactly what he wants though perhaps it is slightly more complicated, since borrowed materials tend to be of an uncommon kind. Cost figures have varied up to as high as $7.00 for a complete transaction, but the most extensive study, by J.G. Hodgson, showed an average of $1.32 for borrowing and 69¢ for lending (based on number of loans completed), with costs at larger institutions running more than at smaller.[28] At Columbia University, it took $2.70 to borrow and $1.27 to loan a book; the personnel fraction for borrowing was 54 per cent and for lending 84 per cent.[29] Use of bibliographic centers resulted in decreased unit loan costs in the Hodgson study, although if the membership support was considered, it was more expensive; this was because the centers got the more difficult questions.

Just how much reference work is involved in interlibrary loans has not been revealed quantitatively; three of the four persons mentioned in the Columbia study are non-professional, and Hodgson observed that very often professional time was consistently spent on operations of a clerical nature. Faulty citations in loan requests make the need for competent handling obvious. However, one analysis of 546 requests (containing 285 errors) found that only 8 per cent could be called serious errors, another 24 per cent might cause some difficulty, 20 per cent were minor errors, and 48 per cent were acceptable as they stood.[30] This indicates that costs may possibly be reduced through an operations analysis, and the reference portion may become comparatively small.

Communications facilities are a big factor in establishing these cooperative ventures. While the U.S. mails do get the information through, extensive development promises use of new techniques. The flashier ones (such as phototransmission, Ultrafax, etc.) are not yet generally available and their costs are astronomical for common usage. However, teletype has been rather widely used and proves quite workable; a number of so-called networks have been set up, following the lead of Racine and Milwaukee. In 1955, at least thirty-three libraries were listed on an MILC Directory Card for TWX. Increasing costs and relatively small use to date have caused a number of cancellations; the current national TWX directory shows sixteen library installations in the classified section, though some additional ones are to be found in the main listing. Costs of a loan in the Racmil arrangement were reported in 1956 as $1.36, including messenger and service charges.[31] At John Crerar Library the records show 138 incoming and ninety-

seven outgoing calls over the past two years. With the monthly TWX service charge this amounts to $1.28 per call for all of the 235 calls, plus a regular message rate charge for any non-collect calls originated by Crerar.[32] All of this is really a sidelight on cooperative reference efforts, indicating some of the cost factors involved. Generally speaking, any extensive efforts to date have cost money, real money, whether they be union lists, TWX installations, or bibliographic centers. In nearly all instances, the improvement in readers' services, both in time saved and in resources made more readily available, has been counted worth the cost.

The original proposals for the content of this paper ended with a pressing question--is reference service worth what it costs? Some of the most beautiful and liquid prose in library literature has been devoted to this subject. It can be shown that one librarian's time paid off at $2,000 per minute, and that a little child came back to life as a librarian found certain references but the original problem of valuation still exists. No one can honestly tell what the correct answer to his question means in hard dollars and cents--at least, not very often. The most objective approach to the problem comes from a British information officer, and is particularly appropriate when a hard dollars and cents reply is needed: what would it have cost to find the answer if the librarian--or even the library--were not there?[33]

Not the least of many values is the benefit to a patron of explaining just what it is that he wants to know to an analytically-minded reference librarian; very often in this process the problem is clarified and stabilized to such an extent that there is no longer a question. And one final thought on the value of reference service: what would be the cost without it, in terms of the lost potential use of the library's collections and of recorded knowledge in general? Librarians can buy materials, catalog them, and shelve them by the yard and a certain proportion, probably a sizable one in some cases, will be touched upon and exploited by the patrons working on their own. What greater proportion, what further exploitation, what magnification of resources can be produced by knowledgeable, resourceful--and thus valuable--reference work?

References

1. Roth, Elizabeth B.: Can You Measure Reference Costs? News Notes of California Libraries, 49:303-307, April, 1954.

2. Peterson, Harry N.: Performance Budgeting, Work Measurement and the Public Library. Wilson Library Bulletin, 27:620-623, April 1953.

3. Christ, Robert W.: Recording Reference Service. College and Research Libraries, 8:23-27, Jan. 1947.

4. Guerrier, Edith: Measurement of Reference Service. Library Journal, 61:529-531, July 1936.

5. Lyle, Guy R.: Administration of the College Library. 2nd ed. rev. New York, Wilson, 1949, p. 588.

6. Rider, Fremont: Library Cost Accounting. Library Quarterly, 6:331-381, Oct. 1936.

7. Miller, Robert A.: Cost Accounting for Libraries. Library Quarterly, 7:511-536, Oct. 1937.

8. Roth, op. cit.

9. Peterson, op. cit.

10. Christ, op. cit.

11. Reed, Sarah R.: 1946-1956 Public Library Reference Services. Library Journal, 82:131-137, Jan. 15, 1957.

12. Pierce, Watson O.: Work Measurement in Public Libraries. New York, Social Science Research Council, 1949, p. 64.

13. Ibid., p. 65.

14. Peterson, op. cit.

15. Reed, op. cit.

16. Roth, op. cit.

17. Rider, op. cit.

18. Baldwin, Emma V., and Marcus, William E.: Library Costs and Budgets. New York, Bowker, 1941.

19. Miller, op. cit.

20. Roth, op. cit.

21. Baldwin, op. cit.

22. Rider, op. cit.

23. Baldwin, op. cit.

24. Littleton, Issac T.: The Distribution and Cost of Library Service. College and Research Libraries, 17:474-482+, Nov. 1956.

25. Hughesdon, Harold, and Costello, Gertrude. An Experiment in Cooperation. ALA Bulletin, 51:129-133, Feb. 1957.

26. Metcalf, Keyes D.: Proposal for a Northeastern Regional Library. College and Research Libraries, 11:238-244, July 1950.

27. Shaw, Elizabeth M.: Planned Referrals in Washington, D.C. Suburban Libraries. PLD Reporter, 5:48-49, Nov. 1956.

28. Hodgson, James G.: A Preliminary Report on Interlibrary Loan Costs. College and Research Libraries, 13:327-331, Oct. 1952.

29. Lucy, Mary L.: Interlibrary Loans in a University Library. College and Research Libraries, 13:344-349, Oct. 1952.

30. Hodgson, James G., and Kidder, Robert W.: Errors and Incomplete Entries in Interlibrary Loan Requests. College and Research Libraries, 13:336-341, Oct. 1952.

31. Pethybridge, Arthur: "Racmil Teletype" Reference and Interlibrary Loan by Teletype Between Racine (Wis.) Public Library and the Milwaukee (Wis.) Public Library. PLD Reporter, 5:31-32, Nov. 1956.

32. Henkle, Herman H.: Library Networks. In: Shera, J.H., et al., eds.: Information Systems in Documentation. (Advances in Documentation and Library Science, vol. II) New York, Interscience, 1957, p. 607.

33. Hanson, C. W.: Costing Information Services. ASLIB Proceedings, 3:85-88, May 1951.

NEW SOURCES IN THE SOCIAL SCIENCES

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The social sciences are the most difficult of all the sciences to supply with sufficient reference sources and especially with adequate bibliographic tools. This difficulty, of course, stems from the intrinsic difference between the subject matter and literature of the social sciences and that of the natural sciences. In the latter the elements of measurement and experimentation are comparatively stable and controllable. But the material of the social sciences is man; man and his behavior in society; man who changes and reacts to change.

The behavior of man cannot be produced at will under laboratory conditions. It can only be observed and recorded as it happens, and it is this written record with which the social scientist must deal. So enormous and diverse is the record that the social scientist studies only a segment of it, that which reveals man's economic behavior or his political behavior, for instance.

Specialization continues to grow as knowledge becomes divided into smaller and smaller units and reference tools likewise become more and more specialized, but along with this specialization there is also interdependence. The political scientist cannot ignore economics, nor can the educator ignore psychology, and the same statistical study may provide data for all four fields. Thus, despite the flood of new reference works each year, the problems of the social science librarian become increasingly more complex. During the last decade some definite steps have been taken toward trying to find solutions.

In the fall of 1948 the Graduate Library School and the Division of the Social Sciences of the University of Chicago received a grant from the Carnegie Corporation to support an investigation of the desirability and feasibility of an abstracting system for the social sciences. The study was later generalized to include the whole problem of bibliographical services in the social sciences.

Social Science Abstracts was established in 1928 to cover

the whole range of social science literature but it ceased in the depths of the depression because of a lack of funds. Today some fields and sub-fields of the social sciences are served by such tools as Psychological Abstracts and the Population Index. "In other fields," the report resulting from the University of Chicago study declares, "the situation is not so happy. Economists, sociologists, anthropologists, historians, and political scientists do not have adequate bibliographical coverage in their own fields."[1] This study found librarians in almost complete agreement that the existing bibliographic services in the social sciences as a whole were the poorest of any of the major fields of knowledge.

Two recommendations were made for the immediate improvement of the situation, (1)a system of review articles on particular social science problems, and (2) a system of selected abstracts covering fields not served in this way. They recommended specifically one abstracting service for economics and one for sociology, anthropology and political science with history being handled by itself or with the latter.

Whether as a direct result of this study or not, modifications of some of these proposals have since been tried with varying degrees of success. Most of them have come under the auspices of UNESCO. In 1950, the International Committee for Social Science Documentation was formed, with UNESCO's support, in order to promote the development of all bibliographical and documentary activities of interest in the social sciences. The committee considered its main task that of supplying each social science discipline with the basic bibliographical instruments essential to it. Through this committee UNESCO has made good progress toward this objective and the International Bibliographies of Economics, Political Science, and Sociology are now available. The first two are issued annually and the last is part of a publication called Current Sociology, which appears quarterly and alternates issues of the Bibliography with trend reports on subjects of particular importance in sociology. Another quarterly begun by UNESCO is International Political Science Abstracts which presents in each issue approximately 500 abstracts from journals throughout the world. It has become so well established that with volume five it was taken over entirely by the International Political Science Association and published by Blackwell. Other concrete bibliographical accomplishments of UNESCO have been the International Social Science Bulletin, Education Abstracts, Theses in the Social Sciences, and the World List of Social Science Periodicals.

A number of abstracting services have appeared in recent years under auspices other than UNESCO, among them Historical Abstracts, Economic Abstracts, Personnel Management Abstracts, and Sociological Abstracts. Economic Abstracts seems to have already ceased but on the other hand Sociological Abstracts, now in its fifth volume, sees its goal of world-wide coverage of sociological literature coming closer. These examples of some of the available bibliographies and abstracts help to point up the problems of bibliographic organization in the social sciences and current trends toward their solution. There is still a great deal of fragmentation and all libraries cannot subscribe to all of the services. A smaller library will usually find the abstracts more useful than the international bibliographies for an "abstract performs two important functions: it serves as a guide to the most valuable in an embarrassment of valuables, and it becomes a substitute for the complete reading of matters of marginal interest."[2]

In reviewing the list of new reference sources in the social sciences, appended to the end of this paper, it is readily apparent that there are more items from some fields than others. However, some of the disciplines within the social sciences have less need for new sources than others. Some areas need to consolidate their holdings, so to speak, while others tread on uncharted ground. Some works are of the type that would be included on any list, while others are decidedly "off-beat." Therefore, some of the items on the list are long-awaited revisions of, or additions to, older works while others are representative of types of publications now coming out, and still others are simply the only thing in their field.

In history, the problem has been mainly one of up-dating, consolidating, and summarizing. From the wealth of things published recently in this field, three works, all pertaining to American history are worth special mention. They have completely different uses as one is a bibliography, one an index, and one an encyclopedia.

The bibliography is the Harvard Guide to American History and is the long-awaited successor to the Channing, Hart, and Turner Guide to the Study and Reading of American History published in 1912. The Guide brought the subject to 1910 and has been out-of-print for twenty years. The present work includes publication through December 31, 1950. Because the output of the past forty years has been "depressingly abundant," as the editors phrase it, they have had to completely revise the earlier work, as well as bring it up to date. They characterize their task as one not so much of "simple compi-

lation as of rigorous selection among the items most useful for present-day needs."[3]

As evidence of the depressing abundance of publication in American history the editors of the Harvard Guide cited the annual publication, Writings on American History, formerly published by the American Historical Association and now compiled by the Library of Congress. An index to the wealth of material listed in these volumes from 1902 to 1940 is now available under the title Index to the Writings on American History. It was compiled through the efforts of David Matteson whose patience and diligence in its compilation are recorded in the reports of the American Historical Association. Unfortunately, he died before seeing its completion. The volume is more than a cumulation of the indexes to the individual volumes since it has also been compiled from the subject matter of these volumes and contains references and subject classifications which will not be found in the separate indexes. Certainly it is a welcome addition to the history reference shelf.

The third item in American history is Morris' Encyclopedia of American History. To quote from the introduction to the book, "The aim of the Encyclopedia is to provide in a single handy volume the essential historical facts about American life and institutions. The organization is both chronological and topical. Dates, events, achievements, and persons stand out, but the text is designed to be read as a narrative."[4] The work is divided into three main parts, the Basic Chronology, Topical Chronology, and Biographical Section. The index lists such things as the "Maine" sinking or the Root-Takahira Agreement and refers to the proper page in the Basic Chronology. Under Music in the Topical Chronology the debuts of musical artists are given and under Theater, a list of Pulitzer Prize plays. While there are a number of books of this type on the market, some limited just to dates and others which elaborate a little upon historical facts, Morris is probably one of the most useful.

In the biography field there is a continuing and growing group of Who's Whos. Two recent additions, Who's Who in Germany and Who's Who in World Jewry, are especially significant. The former means that it will no longer be necessary to struggle with Wer ist Wer but that brief biographies of well-known figures in the German Federal Republic are available in English. The latter is the first to take special notice of Jews outside of the United States and with the growth of Israel it should prove helpful.

Most important, however, from the standpoint of social

scientists is the ninth edition of American Men of Science. This work is now in three volumes and volume three is devoted to the social and behavioral sciences. In addition to psychologists, geographers, and anthropologists, who were also to be found in earlier editions, this volume includes men in such fields as economics, sociology, political science, and industrial management. It was originally planned to cover historians as well but this plan was changed. They are, however, included in the new third edition of the Directory of American Scholars being classed with the humanities.

A number of new reference sources in the field of political science reflect the growth of interest in international relations and the need for aids to study in this field. Especially important in this area are two works compiled by Amos J. Peaslee. The first one published and probably the most used is Constitutions of Nations originally published in 1950 and already out in its second edition in 1956. As the Foreword states, "Since the publication of the first edition in 1950 major changes have occurred in the texts or status of the constitutions of 35 of the total of 89 nations--approximately 40 per cent of them. Five new countries have become generally recognized sovereign nations."[5] The summary of each country includes international status, form of national government, the source of sovereign power, the rights of the people, the make-up of the legislative, executive, and judicial branches of the government, and the area, population, and language of the country, plus a full text of the country's constitution and a bibliography. Comparative tables on participation in international organizations and the other items summarized in the text are located in the back of the book.

The second compilation by Mr. Peaslee, this time a two volume work, is entitled International Government Organizations; Constitutional Documents and "...this is a compilation relating only to international organizations created by governments, and themselves of a governmental nature."[6] Under each organization, the Organization of American States for example, a summary is given followed by the text of its constitution, and often a bibliography is included.

Still in the field of international relations but narrowing its scope from the world to Europe is the European Yearbook, now in its third volume. On the back of the title page for the 1957 edition is the statement, "The aim of the European Yearbook is to promote the scientific study of European organizations and their work." This yearbook contains articles on such topics as European integration, productivity, and Western

policy toward Russia and the satellites. These articles are written in either English or French with a summary in the other language. Following this is a documentary section on European organizations with many of the documents printed in English and French on opposite pages. The final section is a bibliography of books and pamphlets on European integration.

The Fund for the Republic, recognizing the need for some comprehensive aids to the study of communism in the United States, has produced two valuable reference works, Bibliography on the Communist Problem in the United States and the Digest of the Public Record of Communism in the United States. Over half of the Bibliography is devoted to a listing of works by author with brief descriptive comments on each. This is followed by a subject index with such headings as Organization, Objectives and Techniques, Communism and American Institutions. The appendices give antecedents of organized communism, a brief discussion of world communism, a list of communist and left-wing periodicals, and a short reading list on communism.

The Digest, a companion volume to this work, is a source book. It "undertakes to collect in one place, readily available to any person desiring to familiarize himself with the Communist problem, digests or extracts of public records of the most significant executive action, legislation and legislative committee proceedings, and court proceedings relevant to this question in the United States."[7] Part one gives federal statutes, regulations, and decisions under such headings as Sabotage, Teaching and Advocacy of Subversive Doctrines, Perjury and Obstruction of Justice, and Passports. Part two is devoted to state statutes and decisions. Here the answers to some of those questions that still come up from time to time concerning loyalty oaths in various states are found. Finally there is a section of public documents originating in the House, Senate, and Executive Departments of the federal government.

A final item in the field of political science is National Party Platforms 1840-1956 which should prove to be a very useful compilation in both large and small libraries. The platforms are grouped chronologically by campaign with a brief statement at the beginning of each year of the parties competing in that year.

Concern with international affairs is evident in works in education and economics as well as those in political science. In education, in addition to its concrete accomplishments in the field of social science bibliography, UNESCO has provided the World Survey of Education, sub-titled, "Handbook of Edu-

cational Organization and Statistics." They expect to publish this work every three years in English and French. It begins with a world survey chapter and comparative statistics, followed by 194 national and territorial chapters giving the legal basis, administrative organization, number of schools, teachers, and pupils. There is a useful bibliography at the end of each chapter and a glossary at the end of the book.

According to the Yearbook of Anthropology, "The discipline of anthropology in recent years has grown spectacularly in its influence and in its numbers of students and professional workers."[8] In order to report these major accomplishments and trends in the field, this yearbook was begun in 1955. It includes a guest editorial, chapters on man's past (man's present is projected for the next volume), considerations of theory and practice, a regional round-up for Europe and Southwest Asia, and reference data. The latter which deals with dissertations, awards, associations, etc., is to be greatly expanded in future issues. It remains to be seen, however, how regularly these projected volumes will appear.

Turning to economics, broadly defined, the international emphasis is on two important new works: World Population and Production and World Commerce and Governments, both by W.S. and E.S. Woytinsky. The volumes represent "an effort to put between the covers of two manageable volumes what amounts to a statistical picture of the collective resources, as well as the economic performance and promise of the full array of the nations of the world."[9]

Volume one deals with man and his environment, world needs and resources, agriculture, energy and mining, and manufactures, giving historical background, statistical tables, and trends under each heading. Trade, transportation, and governments comprise the subject matter of the second volume. These volumes should prove especially valuable to the small library which cannot afford many primary statistical sources.

To help librarians, and their patrons, through the maze of business services and publications, and to suggest other types of information sources to those active in business and governmental management as well as students in these fields, two business librarians have published guides. Marian C. Manley, former business librarian of the Newark Public Library, has compiled an introduction to these sources in Business Information; How to Find and Use It. A year later in 1956, Paul Wasserman, librarian and assistant professor, Graduate School of Business and Public Administration, Cornell University, published Information for Administrators.

Although these two works cover some of the same ground, the emphasis in the Manley book is on published sources while Wasserman gives special attention to other types of information sources, including agencies, associations, and governmental programs. Typical chapter headings in his book are, "Libraries as Information Centers," "Government as a Source of Information," and "The Informational Role of the Chambers of Commerce."

A useful work specifically geared to the associations is the Encyclopedia of American Associations: A Guide to the Trade, Business, Professional, Labor, Scientific, Educational, Fraternal and Social Organizations of the United States. In 1949 the United States Department of Commerce published National Associations of the United States which turned out to be one of the most used books on the reference shelf but by 1956 it was out of date. The new Encyclopedia of American Associations gives the name, address, chief paid official or secretary, number of members, number of staff, founding date, brief description of activities, and purpose for all types of associations, including Chambers of Commerce. Supplements include labor unions and a functional topical index.

Out of the large number of atlases published in the last few years two British sets, Times Atlas of the World and the Oxford Economic Atlases, stand out as new and major ventures. The Times produced its first atlas in 1899 and between 1920 and 1922 came out with a much more elaborate atlas, published in parts and called the Times Survey Atlas of the World. Now the mid-century edition is entirely new and is designed to serve as an interesting atlas for general, official, and library use. Volume three, the first number in this edition, covering "Northern Europe" was published in 1955, and the plan is to publish another volume each spring until all five have been issued. Volume four, "Mediterranean and Africa," and Volume five, "The Americas," have appeared as scheduled. Volume one, "The World, Australia, East Asia," should be issued next spring and Volume two, "India, Middle East, Russia,"in 1959. These atlases have an attractive format and design. Most of the plates are in eight colors with fine detail and clear, beautiful cartography. Each volume is well bound and has its own index of place names. All in all this is a long awaited and welcome set of maps.

Oxford is a newcomer to the atlas publishing field but already has about half a dozen atlases on the market including the Concise Oxford Atlas and the Oxford Home Atlas of the World. It is, however, the economic series which represents

its major contribution thus far. In 1954 it published the Oxford Economic Atlas of the World, planning to follow it with regional atlases dealing with smaller areas in much greater detail. The Atlas of the World contains physical and general reference maps in an introductory section, followed by ten sections of commodity maps under such headings as cereals, fruit and wine, and fuel and power. A concluding part is devoted to population and communications. The index is arranged by country with tables for each.

The first of the regional atlases to be received is the one for Russia and Eastern Europe. Commodity and other maps are accompanied by concise summaries of the history, distribution, present status of the various industries, crops, and other data. Since the area covered includes eastern Europe, it is the first time easily accessible geographical information of a much neglected part of the world has been available. Seven other regional atlases are to follow with the Middle East and North Africa announced for January at a price of $10.00.

Along with the wealth of European travel books revisions of some of the volumes in the American Guide Series are coming out. This series was originally compiled by the Workers of the Writers' Program of the Work Projects Administration and has proven a very useful series but is now out of date. New editions using 1950 census figures have appeared for New Mexico, Arizona, California, Minnesota, Missouri, and North Carolina and more are announced. However, some reprints are still being published.

A very useful little book, dealing with a particular city, is New York City Guide and Almanac 1957-1958. This contains such information as: the estimated increase in the number of dwelling units from 1950 to 1956 in New York City was 125,700; the assessed valuation of the Chrysler Building is $14,000,000; and Broadway production statistics and information about neighborhood weekly newspapers, for instance, the Coney Island Times has a circulation of 6,500. The book also has numerous illustrations of people and places. Such handbooks would be useful for other large American cities and particularly for Chicago in this part of the country.

One of the most useful new sources in the social sciences is the Five-Year Index to Facts on File. It covers the years 1951 to 1955 and earlier ones are planned. Facts on File is not only a self-sufficient source of news facts, but a means for determining the exact date an event was reported in the press. It is for this last purpose that the index will be particularly useful. It is arranged in five parallel columns, one

column for each year. Since this is World Series season, baseball will serve as a good example. Under Stan Musial in this index, the first column, that is in 1951, indicates that he hit an All-Star game homer on July 10. Moving to the right, in 1952 he won the National League batting title. In 1953 among other things, he signed his contract on January 5th. In 1954, the next column shows, he set a single day homer mark. And the column farthest to the right for 1955 lists another homer he hit to win the All-Star game on July 12. An examination of the index under Nobel Prizes shows the date they were given in each of the years covered. Similarly under "Motion Pictures" subheading "Censorship," the cases of movie censorship are given for each year with the date.

With these and similar new sources, it may be that the social scientist can keep abreast of the literature in his field a little more easily, and possibly reference librarians can answer a few more questions a little more quickly--if only the patron would ask the right question.

References

1. Bibliographical Services in the Social Sciences. Library Quarterly, 20:80, April 1950.

2. Henry, Mildred I.: Some Problems of Bibliographic Control in the Social Sciences. Special Libraries, 41:87-88, Mar. 1950.

3. Harvard Guide to American History. Cambridge, Harvard University Press, 1954, p. vii.

4. Morris, Richard B., ed.: Encyclopedia of American History. New York, Harpers, 1953, p. xiii.

5. Peaslee, Amos J., ed.: Constitutions of Nations. 2nd ed. The Hague, Martinus Nijhoff, 1956, p. ix.

6. Peaslee, Amos J., ed.: International Governmental Organizations; Constitutional Documents. The Hague, Martinus Nijhoff, 1956, p. ix.

7. Digest of the Public Record of Communism in the United States. New York, Fund for the Republic, 1955, p. vii.

8. Yearbook of Anthropology. New York, Wenner-Gren Foundation for Anthropological Research, Inc., 1955, p. vii.

9. Woytinsky, W.S., and Woytinsky, E.S.: World Population and Production. New York, Twentieth Century Fund, 1953, p. v.

Additional References

Barrett, D.J., comp.: Selected Books for Small and Medium-Sized Reference Collections. Minnesota Libraries, 17:236-240, Dec. 1953.

Egan, Margaret E.: Bibliographic Development in the Social Sciences. American Documentation, 2:11-18, Jan. 1951.

Gorchels, Clarence C.: UNESCO; Bibliographic Control in the Social Sciences? Library Journal, 80:1772-1774, Sept. 1, 1955.

Taeuber, Irene B.: Social Sciences; Characteristics of the Literature, Problems of Use, and Bibliographic Organization in the Field. In: Shera, J.H., and Egan, Margaret E., eds.: Bibliographic Organization. (University of Chicago Studies in Library Science) Chicago, University of Chicago Press, 1951, pp. 127-139.

NEW SOURCES IN THE SOCIAL SCIENCES

Indexes and Abstracts

Current Sociology. v. 1, 1952- . Paris, UNESCO, 1952- Quarterly. $8.50. ($3.00 without the International Bibliography of Sociology.)

Education Abstracts. v. 1, 1949- . Paris, UNESCO, 1949- . Monthly. $1.75.

Historical Abstracts, 1775-1945. v. 1, 1955- . Vienna, Historisches Seminar, 1955- . Quarterly. $15.00.

International Bibliography of Economics. 1952- . Paris, UNESCO, 1955- . Annual. $7.50.

International Bibliography of Political Science. v. 1, 1953- . Paris, UNESCO, 1953- . Annual, $3.00.

International Bibliography of Sociology. [v. 1] 1952- . Paris, UNESCO, 1952- . Annual. (Issued as numbers of Current Sociology.)

International Political Science Abstracts. v. 1, 1951- . Oxford, Blackwell. Quarterly. $5.00 (v. 1-4 published by UNESCO).

Personnel Management Abstracts. v. 1, 1955- . Washington D.C., 1955- . Quarterly. $10.00.

Sociological Abstracts. v. 1, 1952- . New York, 1952- . Quarterly. $5.50.

History

Harvard Guide to American History. Cambridge, Mass., The Belknap Press of Harvard University Press, 1954. 689p. $10.00.

Matteson, David M. Index to the Writings on American History, 1902-1940. Compiled for the American Historical Association ... Washington, D. C. [1956] 1115p. $5.00.

Morris, Richard B., ed. Encyclopedia of American History. New York, Harpers, 1953. 776p. $6.00. Text ed. $4.50.

Biography

American Men of Science. Jacques Cattell, ed., 9th ed. v. 3, The Social and Behavioral Sciences. New York, R.R. Bowker, 1956. $20.00.

Who's Who in Germany. New York, Intercontinental Book & Publishing Co., Ltd., 1956. $20.00.

Who's Who in World Jewry. New York, Monde Publishers, Inc., 1955. $35.00.

Political Science

Peaslee, Amos J., ed. Constitutions of Nations. 2nd ed. The Hague, Martinus Nijhoff, 1956. 3v. $22.50.

Peaslee, Amos J., ed. International Governmental Organizations; Constitutional Documents. The Hague, Martinus Nijhoff, 1956. 2v. $15.00.

Annuaire European, European Yearbook. Published under the auspices of the Council of Europe. The Hague, Martinus Nijhoff, 1955- . $22.00.

Bibliography on the Communist Problem in the United States. New York, Fund for the Republic, 1955. 474p. $5.00.

Digest of the Public Record of Communism in the United States. New York, Fund for the Republic,, 1955. 753p. $5.00.

Porter, Kirk H., and Johnson, Donald B. National Party Platforms, 1840-1956. Urbana, University of Illinois Press, 1956. 573p. $10.00.

Education

World Survey of Education. Paris, UNESCO, 1955. 943p. $16.00.

Anthropology

Yearbook of Anthropology. New York, Wenner-Gren Foundation for Anthropological Research, Inc., 1955. $15.00.

Economics

Woytinsky, W.S., and Woytinsky, E.S. World Population and Production. New York, Twentieth Century Fund, 1953. 1268p. $12.00.

Woytinsky, W.S., and Woytinsky, E.S. World Commerce and Governments. New York, Twentieth Century Fund, 1955. 907p. $10.00.

Manley, Marian C. Business Information; How to Find and Use It. New York, Harpers, 1955. 265p. $5.00.

Wasserman, Paul. Information for Administrators. Ithaca, N.Y., Cornell University Press, 1956. 375p. $6.00.

Encyclopedia of American Associations: A guide to the trade, business, professional, labor, scientific, educational, fraternal and social organizations of the United States. Detroit, 424 Book Tower, Gale Research Co., 1956. 306p. & 2 supplements. $15.00 inc. supp.

Oxford Economic Atlas of the World. London, Oxford University Press, 1954. 152p. $7.00.

Oxford Regional Economic Atlas - the USSR and Eastern Europe. London, Oxford University Press, 1956. 134 p. $10.00.

Geography

The Times Atlas of the World: mid-century edition. John Bartholomew, ed. London, Times Publishing Co., 1955- . v. 3- . $125.00 the set of 5 vols. (Volumes 3-5 have been published.)

American Guide Series. Originally compiled by the Federal Writers' Project (later called Writers' Program). Publishers vary. Revised editions now appearing.

New York City Guide and Almanac 1957-1958. Compiled and edited by New York University Press, Inc., 1957. $2.75.

Facts on File. Five-year Index 1951-1955. New York, Facts on File, 1957. $40.00.

NEW SOURCES IN THE HUMANITIES

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To discuss in the short space of this paper all the interesting and important new reference sources which have appeared in the humanities in the past seven years is impossible. The humanities cover many things--language and literature, fine arts and religion and philosophy and to select the titles for this paper was to flip a thousand coins.

Trends soon become apparent in such a task as this, for example, the hundreds of handbooks and companions which have appeared to give a proper background for reading, viewing, and listening might be termed the Background Trend. Then there is the Know-How Trend, with a flood of books on how to do everything. The Book Review Digest in five years listed over two hundred books beginning with "How to. . . ." There are vast numbers of new editions of old works, some of them with only slight revisions, but all of them sure of a market. Yearbooks have appeared in every area--theatre, ballet, opera--and vie with each other in excellence of illustration and format.

Certain arbitrary limitations have been necessary in preparing this paper. It was decided to omit all yearbooks, and all supplements to works published before 1950. A few sets have been included that could be afforded only by a large library, simply to report that such works are available. Otherwise, the selection has been based on usefulness, dependability, distinction, and sometimes on quite a lot of charm.

In a glance over the field of new sources in language and literature, a number of interesting trends come to light. One is the great number of bibliographical studies of individual authors like Dylan Thomas, Rupert Brooke, Walter de la Mare, and Norman Douglas. Another is the apparent large market for books about words--little dictionaries of word sources, word uses, word pronunciation, etc. More and more there are dictionaries of Americanisms, written from the "American point of view." Perhaps television is making people self-conscious about their speech and creating a new awareness of its variety and picturesqueness.

But what has caused the sudden demand for many books of quotations?

Another discernible trend is the increase in interest in so-called "world literature." The anthologies, dictionaries, and encyclopedias in English are all welcome because previously they have been an almost unknown quantity. Surely this dawning interest in other literatures is part of the world trend toward united nations. It is natural to be curious about the literature of these new neighbors.

There are amusing trends. Today, anthologies are usually "treasuries" and handbooks are "companions." There are "guides" to everything from toastmastering to jazz. Books are called dictionaries and encyclopedias that bear no faint resemblance to such titles as librarians know them. Librarians are becoming accustomed to a perpetual sense of outrage, but the publishers pay little heed to the dilemma.

In discussing these materials, most of the foreign language titles, including dictionaries, and all of the studies of individual authors, except, of course, Shakespeare, were omitted.

Two basic indexes for any reference collection are the new edition of Granger and the new Short Story Index. A companion piece is the American Library Association's new Subject and Title Index to Short Stories for Children, which is indispensable in the public library. The list of Christmas stories in the latter will be a boon in any library.

Several other indexes, however, should be discussed more fully for fear they will be missed. A couple of British librarians have compiled a Fiction Index, published by the Association of Special Libraries and Information Bureaux, and covering 10,000 works of fiction. Arranged by subject, most of them have been published since the war. To American librarians a serious flaw is the omission of dates and publishers for each work of fiction. The authors state that their book is intended to be a sort of supplement to Baker's Guide to the Best Fiction.

Somewhat startling has been the advent of four new play indexes. First, in 1951, came Ottemiller's new edition of his Index to Plays in Collections. It indexed collections published between 1900 and 1950 and covered plays both ancient and modern. Ottemiller planned to issue regular supplements to this work. In 1953 two more indexes appeared, F.K.W. Drury's Guide to Best Plays and West and Peake's Play Index, 1949-1952. Drury, a former librarian, who died in 1954, listed only plays in English that had been successful, and his particular interest was play selection. The West-Peake volume is a

kind of supplement to Firkin's Index to Plays, now over twenty years old. It has a valuable feature not found in the others; a cast analysis with the number of characters. All types of plays are included.

Last year Faxon published Ruth Thomson's Index to Full Length Plays, 1895 to 1925, uniform with her first index covering 1926 to 1944. Thus her indexes cover fifty years of play collections. This volume was the last work of another librarian; she began it in 1947 and continued to work on it until her death in 1956.

Also in 1956 the Scarecrow Press brought out Sutton's Speech Index, 1935-1955, a long-awaited tool. It has adopted the use of symbols for the books, like so many indexes, and is a workmanlike job.

A new volume to appear in the extremely useful Wilson Authors Series is British Authors Before 1800. Bibliographical material is brief, as in the other works of the series, and the works about the subject are undated. There are songwriters and translators among the authors; the portraits are exceedingly good. These informal sketches are eminently readable and very successful with college students.

Turning to world literature, a welcome new work is Cassell's Encyclopedia of World Literature, appearing first in England and the work of British contributors, except for four lonely Americans. It covers some eighty literatures, including some unexpected ones like Eskimo and Basque. Compared with Shipley's Encyclopedia of Literature, one does about as well as the other; the Columbia Dictionary of Modern European Literature, however, is more thorough for European material. Cassell's Encyclopedia has a curious arrangement. It is divided into three parts: the first is on histories of world literatures and general literary topics, the other two are biographical. Persons who died before 1914 are in Part II; those who were living on August 1 of that year, or were born later, are in Part III.

Mr. Shipley has now issued a revised edition of his Encyclopedia of Literature and called it a Dictionary of World Literature. Since much of the material in the earlier work has been left out and some articles and bibliographies cut down, it cannot be said to replace the earlier work, though a little new material has been added. Either edition is still good for forms and techniques of literature and for literary criticism. Mr. Shipley has done a very useful job in his Guide to Great Plays, a book containing a wealth of information about 663 well-selected plays, with summaries and references to criticisms. A

criticism of this work, however, is the lack of adequate indexes and some inaccuracies.

This survey would be incomplete without mentioning three volumes issued in 1956 by the Philosophical Library in its Midcentury Reference Series. These are a Dictionary of Latin Literature, a Dictionary of Russian Literature, and a Dictionary of Spanish Literature. Unfortunately, it must be admitted that more often than not, the books issued by this publisher are mediocre. The Dictionary of Latin Literature is considered inaccurate and undependable. The Dictionary of Spanish Literature is better, though the articles are brief and some reputable authors are omitted. The sources quoted are reputable. The Dictionary of Russian Literature is mostly biographical, with emphasis on modern authors; the material covered is fairly broad, including such subjects as theatre and philosophy. It is not a scholarly work but it is very useful because there is nothing else like it. This is true also of the Spanish dictionary. In other words, dictionaries in English on specific literatures are most welcome, even if they do not measure up to the best standards.

The first new handbook in the specific field of English literature in twenty years is the New Century Handbook of English Literature. To quote from its announced purpose, it is designed to "answer those questions about English writers, works of literature, characters from works of literature, and various related (but not necessarily English) items which are most likely to be raised by modern American readers of English literature." This accounts, for instance, for such entries as the "Bridge of Sighs" and the "Lorelei." There are many more entries and entries for later books and authors than in the Oxford Companion to English Literature, and it contains some items not found in Benet's Reader's Encyclopedia, so that it has its place beside these two well-worn volumes.

A valuable new Shakespeare Companion, 1550-1950, by F.E. Halliday, appeared in 1952. Its concern is with the life of Shakespeare, his friends and contemporaries, his works, the theatre of his time, dramatists and theatrical companies, and much more. A sizable bibliography and a type of pictorial summary are found at the end of the volume.

There has been a marked interest in American literary history in recent years, appearing in the form of bibliographies treating various aspects of American literature, studies of literary backgrounds, a pictorial history, studies of American literary criticism, American magazines, etc. Much of this is aimed at the university scholar, but there are many less pre-

tentious volumes for the everyday reader. A third edition of the Oxford Companion to American Literature has come out, a useful handbook for the small library. Actually there is not a great deal of revision of the second edition. Compared with Burke and Howe's American Authors and Books, its entries are fewer but its articles are longer. It is better than Benet's Reader's Encyclopedia for biographical material.

Special bibliographies must be invaluable to a reader's advisor. A new edition of Coan and Lillard's America in Fiction is a welcome event. The work annotates "novels that interpret aspects of life in the United States;" the selection is based on the social history rather than the literary excellence of the material. For this reason there are some inferior works listed and additional indexes beyond a mere author index would be useful. A regional list was put out at Occidental College last year, Kurtz's Literature of the American Southwest. Harvard University Press published a bibliography called The Radical Novel in the United States, 1900-1954, a very good and penetrating essay with a list of radical novels appended.

Clifton Fadiman's American Treasury, 1455-1955, may not be a must, but it certainly is a lovely anthology to have. The Constitution of the Iroquois Confederacy which appeared in 1455 marks the beginning of the research for this work. The book is arranged in three sections: "Book One: We Look at Ourselves and Our Country; Book Two: Poets and Versifiers; Book Three: Various Americans on Things in General." The book can be used for quotations, as well as for the enjoyment of prose and poetry of many shapes and sizes.

There is no single area in all the reference books dealing with language and literature where there are more books to the square inch than in the field of word-origins. When innoccuous titles beginning "Dictionary of Words," etc., began to fail to attract attention, the publishers took to eye-catchers like A Hog on Ice, Heavens to Betsy and Other Curious Sayings, and Why You Say It. These small volumes all add to the gaiety of reference work, and have a definite value in the collection. Lack of space prevents a discussion of them here.

Most dictionaries are based on other dictionaries which in turn were based on other dictionaries. An entirely new two-volume dictionary was published in 1951 called Webster's New World Dictionary of the American Language. It has no connection whatever with the Merriam-Webster people. Issued in three editions--encyclopedic, college, and concise (the latter two are in single volumes)--its entries are based on word frequency lists, with emphasis on terms found in con-

temporary American usage. The pronunciation is that of the average American. Its emphasis on American usage and its encyclopedic nature recommend it for many people.

No dictionary of the English language has ever approached the great Oxford English Dictionary on Historical Principles for superb scholarship. The Shorter Oxford English Dictionary on Historical Principles is an officially authorized abridgment of that great work, which traces the history of words from their earliest known use. A one-volume edition of the latter is now available, a re-issue of the earlier two-volume edition. This would be a most important volume to have if the other editions are not on hand.

A Dictionary of Americanisms on Historical Principles, edited by Mitford Mathews, is an important new dictionary planned on the order of the Oxford English Dictionary. Its 50,000 entries have to do with words that originated in the United States or were brought from abroad and have developed a special meaning here. The book is illustrated with quotations and with drawings of American objects. Complementing the Mathews volume is Berrey and Van Den Bark's American Thesaurus of Slang, of which the second edition has been published. Many outmoded terms were dropped from the first edition, so that, unhappily, one cannot discard it. The book has been entirely rearranged and brought up to date, so as to include new terms in television, radar, sports, the underworld, etc. It is the best work on American colloquial speech.

It is not possible to include here foreign language dictionaries which are one of the most difficult problems of selection for all reference librarians. Of particular usefulness for this problem, however, is a work by a distinguished London librarian, Robert L. Collison, called Dictionaries of Foreign Languages. In this work he discusses general, special and bilingual dictionaries of all the major languages of Europe, Africa, and Asia. There are historical and critical notes, special lists of dialect and technical dictionaries, and a general bibliography. It is disappointing that no prices are given, but Mr. Collison points out the most useful and important works.

One of the areas which has been richly expanded in late years is the shelf of quotation books, those volumes much-used and much-loved by the patrons. Franklin P. Adams gathered together a collection which he called FPA's Book of Quotations, using a topical arrangement. There is an index of topics and one for authors, but unlike other quotation books, there is no word index. One reviewer commented, "FPA is even catholic

enough to include himself--for which the reader will not be sorry." The emphasis is on Americana.

New editions of the Oxford Dictionary of Quotations, Stevenson's Home Book of Quotations, and Bartlett's Familiar Quotations have been published. There is room here only to point out that older editions must be kept because these new editions always omit some material to make room for the new.

Four special new quotation books are worth discussing. Canadian Quotations and Phrases is a topical arrangement of sayings of Canadian authors and of other people on subjects distinctly Canadian. The reference is usually to the exact source. The Book of Catholic Quotations which appeared last year is a collection of over 10,400 quotations drawn largely from the English-speaking world. The Treasury of Jewish Quotations has some 18,000 quotations, many of which have never before been translated into English. It has a topical arrangement and is said to reflect Jewish thought from Biblical times to the present.

A departure from the usual quotation book is the Kenkyusha Dictionary of English Quotations, oddly enough published in Japan. The dictionary lists over 3,000 common quotations from English literature and gives about 10,000 examples of their use by modern English and American authors. They are all divided up into three parts--the Bible, Shakespeare, and other English authors. Indexes are plentiful, including catchwords and first lines. This is a most unusual approach and it is intriguing that such a book comes from a Japanese publisher.

Some interesting trends can be noted in the recent output of books in the field of the fine arts. In England there have appeared an astonishing number of biographical dictionaries of English painters, sculptors, architects, etc. Painting has been the subject of a great many popular histories. Lists of reproductions of paintings and guides to their location have appeared in many forms. Excellent series in the field of art are being launched, such as the Oxford History of English Art, the Pelican History of Art published by Penguin, and the Taste of Our Time series published by Skira.

For the arts in general, there is now a Dictionary of the Arts, by Martin Wolf, covering all forms of art from all periods of world history--a prodigious order. There are no illustrations and no sources, but the work is useful because of its scope and because it is well-written.

There should be on the reference shelves some of the well written histories of art to serve as art encyclopedias in English. Sheldon Cheney's A New World History of Art, appearing

last year, is based on his well-known World History of Art and has a whole new bibliography and many new illustrations. Another excellent work is Robb and Garrison's Art in the Western World, a very substantial survey with large sections on architecture, sculpture, and the minor arts as well as painting.

For biography there is the now completed new edition of Bénézit's delightful Dictionnaire Critique et Documentaire des Peintres, Sculpteurs, Dessinatteurs et Graveurs de tous les Temps et de tous les Pays, in eight volumes. It has many good illustrations and includes many obscure artists, and often the signature of the artist is reproduced.

A new face in the illustration-index family will be a welcome sight to reference librarians. It is Vance's Illustration Index, covering all sorts of subjects in readily available books and periodicals, mostly published since 1950.

In the field of architecture a very notable work is Talbot Hamlin's Forms and Functions of Twentieth-Century Architecture, prepared under the auspices of the School of Architecture at Columbia University. Mr. Hamlin wrote most of the first two volumes on the theory of building and architecture, while many specialists handled volumes three and four. Each building type is described by an outstanding architect. There are thousands of illustrations and innumerable plans, and a special index to works of architecture.

Another welcome addition to the architecture shelves is the long-needed American Architects Directory, with biographical sketches of most of the 10,800 names. The work was sponsored by the American Institute of Architects. Two little dictionaries are worth mentioning, Saylor's Dictionary of Architecture and Ware and Beatty's Short Dictionary of Architecture, both with short but adequate definitions of architectural terms.

From England come three attractive architectural works, Osborne's Dictionary of English Domestic Architecture, and two biographical works by John Harvey and H.M. Colvin on English architects. These are scholarly yet readable; one reviewer called the Colvin dictionary "the most fascinating book that has come into my hands for some time." One of the features of this work is the listing of about 7,000 buildings with authorship established for many of them for the first time.

At last an Encyclopedia of Painting in the English language has been published. It attempts "to give an over-all picture of the outstanding painters, movements, styles and techniques from the most ancient times to the present day." The following year, 1956, brought a Dictionary of Modern Painting, which complements the Encyclopedia of Painting because its illustra-

tions are entirely different and it treats modern material more thoroughly. Both books are profusely illustrated, mostly in color.

Three other general works on painting should be mentioned. Robb's Harper History of Painting: the Occidental Tradition is a handsome volume with more than five hundred beautiful illustrations. It begins with pre-classic times and comes down to the present. The extensive glossary and bibliographies make it an effective reference tool, which was five years in preparation. To complement Robb, Munsterberg's Twentieth Century Painting attempts to explain and evaluate the work of the leading artists of the present time. Speaking of this delightful work, the Manchester Guardian complained that it couldn't be an adequate survey of twentieth century art, but that it was "agreeable to see Kandinsky politely demolished in four lines." Mr. Munsterberg is a professor of fine arts at Michigan State University.

Two biographical works about painters come from England, one on British landscape painters and the other on painters of Tudor times. Both are scholarly and of permanent value. The author of the work on landscape painters, published in 1952, also brought out in that same year a Dictionary of British Etchers, a popular work without sources and bibliographies.

In connection with painting, the various new indexes and guides to reproductions of paintings are very welcome. The Monros have now published a European companion to their Index to American Paintings, and again, the titles are limited to books available in most art libraries. The Scarecrow Press issued a Guide to Color Prints, listing prints available for purchase in the United States. UNESCO issued its second edition of the Catalogue de Reproductions en Couleurs de Peintres, 1860 à 1955, a very useful list of prints available with prices and small reproductions.

In the field of sculpture two dictionaries of British sculptors were received in 1953 from England; Grant's dictionary covered the thirteenth century to the twentieth century, Gunnis covered only from 1660 to 1851. The latter is a rich source of information for many obscure sculptors, with records of the documents and over 6,000 churches where Gunnis found his material.

A good new Short Dictionary of Furniture has appeared, of which the profuse black and white illustrations are probably the best feature. John Gloag is an Englishman who has written widely in the field, but the terms he has defined are used both in England and America. Dictionaries of antiques have become

almost a drug on the market. Wenham's little Antiques A to Z is good, though short on illustrations. Dreppard's Dictionary of American Antiques is an astonishing book, covering a great mass of material on crowded pages covered with small print. As a matter of fact, there are over 15,000 entries and 1,000 line drawings. However, one reviewer called it a "fascinating, erudite, amusing book."

Pottery marks were the subject of two American publications. Kovel's Dictionary of Marks is a well-made little book with a list of pottery names followed by an alphabetical list of subjects, like anchors--dozens of anchor marks--animal and fish marks, etc. Cushion and Honey, two English authorities, have made an excellent guide to identification. Theirs is arranged by country and then by city, an ideal way to approach the subject since famous potteries are associated always with particular cities.

In the costume field, Mary Pickens' newest book has the intriguing title, Fashion Dictionary, packed with information about fabrics, sewing, and dress from the standpoint of fashion. It is well illustrated, and the hats alone are worth the price of admission.

The stamp editor of the Chicago Tribune, Richard Cabeen, is the author of a Standard Handbook of Stamp Collecting, published this year and having a table of world stamps as one of its good reference features. Reinfeld's Treasury of the World's Coins is equally useful for all kinds of collectors, full of practical advice, market values, rates of exchange, etc.

In the realm of handicraft, it might be well to mention a little dictionary on weaving by M.E. Pritchard, designed for the hobbyist and non-technical in its language. For books on hobbies, Kingery's How-to-do-it Books is an invaluable guide, with annotations for a good many of the books, publisher and author and subject lists. Kingery even lists books on how to make a will and adopt a baby.

The basic trend in music books in these recent years has been to stimulating the personal musical experience. One has only to look at the many guides to record buying, LP, Hi-Fi, and many others, or the many armchair companions to music, like those of Milton Cross, Robert Lawrence, Percy Scholes, and David Ewen. There are all the jazz books, full of pictures and chit-chat of the jazz great, fascinating to so many. There is the new Singer's Repertoire, full of program suggestions, and there are books about the old songs that are being revived. The opera broadcasts have resulted in the publication of so many books of opera stories that it is difficult to choose among

them. The great popular interest in good music is the incentive for the production of the kind of books that provide a good musical background for all these eager listeners.

An outstanding event in music reference book publishing is the new fifth edition of Grove. It is more completely revised than any previous edition, with a great deal of rewriting and a vast amount of new material. There is a slight British emphasis, since Eric Blom, a distinguished scholar, was editor, but the work is certainly universal in scope. A new edition of Percy Scholes' Oxford Companion to Music has appeared, an authoritative and interesting dictionary covering a wide range of subjects. An important bibliography, indispensable in the music collection is Schirmer's Guide to Books on Music and Musicians. Arranged in dictionary form, it lists under subject headings all available books in English on music. It covers also a good many books in foreign languages. The annotations, of course, add much to the usefulness of the book.

The Variety Music Cavalcade is a chronology of music that was popular in the United States between 1620 and 1950. Listed parallel to the music are events, as for instance, that a mine disaster took place in a certain Pennsylvania town the same year that "Sonny Boy" was being sung--a feature that seems to librarians a bit useless. This is an expanded version of a list that was published in Variety between 1948 and 1950.

Leonard Feather's Encyclopedia of Jazz isn't really an encyclopedia at all; most of it is biographical sketches. It is hardly satisfactory as a reference book, since the subject matter is contained in two general articles, and it is not indexed. But for the biographical material and the superb illustration, the book is excellent. A basic collection of jazz records is a good feature.

David Ewen has now written a companion to his earlier work, American Composers Today, called European Composers Today. These two volumes completely replace the Composers of Today which he published in 1934, and form a delightful series of bio-critical articles on composers. It is interesting to learn that Mr. Ewen gathered the material for these sketches during personal visits while on a European trip. The second edition of the ASCAP Biographical Dictionary has several hundred new entries and is important for many obscure writers of lyrics and composers and music publishers which are difficult to locate.

For the opera-lovers, David Ewen's Encyclopedia of the Opera is the first book of its kind in any language. There are over 1,000 biographies and 500 stories of operas, histories of

opera houses, etc. Most complete of the opera story books available is Kobbé's Complete Opera Book, now in a large revised edition. All the older operas that are still being produced are there, plus modern works which will probably "be seen by English-speaking audiences during, say, the next ten or fifteen years."

Guides to record buying are legion. An important one is the World's Encyclopedia of Recorded Music, based on the old Gramophone Shop Encyclopedia of Recorded Music, published in 1936. It lists the recordings of unique value made before electrical recording, and with its two supplements, it lists electrical recordings of permanent value up to 1953. Thus it has great worth as an historical work on the subject. For a guide to long playing records, Alfred Knopf's three-volume series Guide to Long-Playing Records is useful. Irving Kolodin wrote Orchestral Music, Philip Miller wrote Vocal Music, and Harold Schonberg wrote Chamber and Solo Instrument Music. These recognized experts have covered selections in their respective fields to include many 1955 records. They describe critically both the composer and the performance, with often a biographical sketch. For those who want an index to the reviews of records, there is Record Ratings, compiled by Kurtz Myers, the only available guide to record criticism. The material in this work appeared originally in the Music Library Association's quarterly, Notes.

Anyone interested in delving into the subject of the theatre --its history, techniques and drama criticism--will be able to start with Blanch Baker's Theatre and Allied Arts, a huge bibliography based on her former Dramatic Bibliography. Almost all of the books listed are available in English and were published between 1885 and 1948. The author has annotated each of the 6,000 books. Another important bibliography in the realm of theatre is the Player's Library, the catalog of the library of the British Drama League, and its two supplements. Both plays and books on the theatre are found in this extensive list, with annotations for the plays and locations in play collections. A Theater Dictionary by Wilfred Granville contains all the technical, colloquial, and slang speech of the stage of the present time. It was originally a British book and naturally was written from the British point of view, but a good many American terms are found. A nice example of this is the word "bouncer" which is found, not in the 'b's' but under "chucker out." However, American librarians will miss the cross references and analytical index.

Another excellent British work on the theatre is the

Oxford Companion to the Theatre, covering all historical times and all parts of the world. Emphasis in this thoroughly interesting book is rather on the popular than the literary theatre, and the actor rather than the playwright. This makes it a good complement to the more academic theatre materials. There are long articles on the theatre in various countries, material on actors, music, ballet, puppetry, and many other allied topics.

A very useful series of lists of motion pictures that have appeared in this country since 1894 has been issued from the Library of Congress. In three volumes, the lists were made from the titles registered in the United States Copyright Office, and give all the data usually wanted about old movies.

A Television and Radar Encyclopedia was brought out in 1953 that is equally useful for people who don't know anything about it and for specialists. It contains a great deal of information not readily available elsewhere, and for that reason and the fact that many entries are treated in short essays, it is a good tool.

Many attractive books appear every year about ballet. One of the most distinguished in recent years was George Balanchine's Complete Stories of the Great Ballets. Balanchine, who is considered the "outstanding choreographer, ballet master and teacher today," discusses more than one hundred ballets that are in the repertoire of companies performing in the United States. The book is beautifully illustrated and well rigged for reference uses.

The aroused interest of the American public in recent years in matters of religion has been a subject of wide comment. The success of books by men like Bishop Fulton J. Sheen and Norman Vincent Peale would indicate that many people are groping for something outside of their daily lives. This interest in religious matters is reflected on the reference shelves, where many little books now appear about Bible lands, Bible people, different religions of the world, religious personalities, holy days, and traditions.

In the broad field of religion a new Index to Religious Periodical Literature has appeared since the American Theological Library Association decided that it was long overdue. It first appeared in 1953, the joint work of the twenty-two seminary libraries in the association, and covers thirty-one periodicals not elsewhere indexed. It was distributed by the American Library Association and last year A. L. A. published a second volume.

Two bibliographies are important. John G. Barrows com-

piled an excellent Bibliography of Bibliographies in Religion, based on his Yale Ph. D. dissertation. He explains that he tried "to bring together all separately published bibliographies in the field of religion." A very useful feature is the location in American and European libraries of copies of the books listed. Another substantial bibliography is Katharine Diehl's Religions, Mythologies, Folklores. This she intended to serve as an "introduction to the literature of faith and practice in all cultures." Most of the works listed were published after 1900 and are in English. The religions are covered far better than the mythology and folklore, and scholarly and popular books are all listed together.

One of the most important additions to the religious book shelves to appear recently is the two supplementary volumes to the New Schaff-Herzog Encyclopedia of Religious Knowledge, called the Twentieth Century Encyclopedia of Religious Knowledge. They can be used quite well without having the earlier volumes, and contain biographical sketches of persons living and dead, signed articles and bibliographies. They form a vital addition to reference material on the Protestant faith since 1900, principally in the English-speaking world.

But it is around the Bible that most of the religious reference book publishing clusters. Atlases, encyclopedias, concordances, quotations--every possible approach to the beloved book is explored. Three excellent Bible atlases have appeared. A new edition of the Westminster Historical Atlas of the Bible, first published in 1945, is again distinguished by clear, well-drawn maps, interesting text and three indexes. Nelson published a translation of a fine Dutch atlas by Luc H. Grollenberg, Atlas of the Bible. It is more scholarly than the other two atlases mentioned here, and has wonderful illustrations, mostly photographs, and thirty-five clear, well-executed maps. The most extensive of these atlases is the Rand McNally Bible Atlas, with a wider scope than Grollenberg, but without the beauty of its photographs, its literary quality, and its more complete indexes.

The Interpreter's Bible is an outstanding event in the field of religious books. Eleven of the twelve volumes have now appeared. Some 125 scholars have written this comprehensive guide and commentary on the Bible, planned for the general reader as well as the preacher and scholar.

An attractive little anthology of writings on the Bible by distinguished Catholic authors from St. Jerome to Jacques Maritain is Ralph Woods' Catholic Companion to the Bible. It is intended for the layman rather than the scholar, which ex-

plains the lack of bibliographical material. Also the first Catholic Biblical Encyclopedia in the English language has appeared, in one volume, intended "for the great majority of educated people." Articles are on every kind of subject relating to the Bible, with bibliographical references only to the scriptures.

Two concordances must be mentioned. The twenty-second American edition of Young's Concordance is for scholarly users of the 1611 English Bible, and contains a supplement called "Recent Discoveries in Bible Lands." Nelson's Concordance for the Revised Standard Version Bible has the somewhat astonishing history of having been prepared with the help of a Univac computer at Remington Rand. It is also an excellent book.

Another good Bible reference book is Harper's Bible Dictionary, a useful, well-illustrated encyclopedic work in one alphabet, covering archaeology, geography, chronology of the Bible, persons and places, ideas, books of the Bible and much more. The authors, Madeleine S. and J.L. Miller, made nine trips to the Holy Land during the six years spent in the preparation of this book. Edith Deen's All of the Women of the Bible is a highly readable work of scholarship and deep insight, with essays on the most famous women and short sketches of the others.

Donald Attwater's Dictionary of Mary is a non-technical, very competent compilation of titles, shrines, feasts, devotions, etc. Mr. Attwater is a noted English Catholic author and scholar, one of the editors of the new edition of Butler's Lives of the Saints. This appeared last year in four volumes, a celebrated work, well-written and authoritative but priced rather high. A small volume called Saints and Their Attributes also appeared last year, very useful for its patronage and locality lists.

In planning a course on religious education at Wisconsin this fall, a distinguished professor said, "No person who calls himself an educated person today can afford to be without at least an elementary acquaintance with the major religions of the world." Encyclopedias on individual beliefs are beginning to appear. There is, for instance, the Mennonite Encyclopedia, which will eventually be in four volumes, covering more than four hundred years of the Anabaptist-Mennonite movement. It was edited by scholars and historians of the three major North American Mennonite bodies. There is a fascinating pictorial supplement at the end of the volume. The Lutheran Encyclopedia, on the other hand, is a general religious ency-

clopedia, with of course a Lutheran emphasis. Another important work is the Shorter Encyclopaedia of Islam, an abridgment of the first edition of the great Encyclopedia of Islam and now issued by Cornell University Press. It treats mainly the religion and law of Islam.

For a small popular treatment, Lee Rosten's Guide to the Religions of America is useful. It is a compilation of the Look magazine series on religion by various authors. Following the essays there are 105 pages of facts on beliefs, material on public opinion polls, holy days, and religious observances. Mead's Handbook of Denominations in the United States in a revised edition came out last year. It handles 225 denominations, is unbiased, and has a lot of reference data about church memberships, addresses of headquarters, etc.

A proposed series of philosophical volumes called The Great Ages of Western Philosophy, published by Houghton Mifflin, has begun very well with a little volume entitled The Age of Belief: the Medieval Philosophers, by Anne Fremantle. Here is presented the best of a thousand years of philosophical thought. The book contains an introduction and interpretative commentary by Miss Fremantle to accompany excerpts from the writing of ten great medieval philosophers. There is a small reading list appended and an index.

These, then, are some of the new sources in the humanities to appear in the fifties. Bewildered and worn out with these many books, the reader will now be in complete accord with Disraeli, who said, "Books are fatal: they are the curse of the human race... The greatest misfortune that ever befell man was the invention of printing."

NEW SOURCES IN THE HUMANITIES

Literature

Granger's Index to Poetry. 4th ed. New York, Columbia University Press, 1953. 1832 p. $35.

Cook, Dorothy E., and Monro, Isabel S. Short Story Index... New York, Wilson, 1953. 1553p. Service.

Subject and Title Index to Short Stories for Children. Chicago, American Library Association, 1955. 333p. $5.

Cotton, G. B., and Glencross, Alan. Fiction Index. London, Association of Special Libraries and Information Bureaux, 1953. 223p. 30s.

Ottemiller, J. H. Index to Plays in Collections. 2d ed. rev. and enl. Washington, Scarecrow Press, 1951. 386p. $6.50.

Drury, F. K. W. Drury's Guide to Best Plays. Washington, Scarecrow Press, 1953. 367p. $6.50.

West, Dorothy H., and Peake, Dorothy M. Play Index, 1949-1952. New York, Wilson, 1953. 239p. $5.

Thomson, Ruth G. Index to Full Length Plays, 1895 to 1925. Boston, Faxon, 1956. 172p. $5.

Sutton, Roberta B. Speech Index, 1935-1955. New Brunswick, N. J., Scarecrow Press, 1956. 448p. $8.50.

Kunitz, S. J., and Haycraft, Howard. British Authors Before 1800. New York, Wilson, 1952. 584p. $6.

Steinberg, S. H., ed. Cassell's Encyclopedia of World Literature. New York, Funk & Wagnall, 1954. 2v. $25.

Shipley, J. T. Dictionary of World Literature. New York, Philosophical Library, 1953. 453p. $7.50.

Shipley, J. T. Guide to Great Plays. Washington, Public Affairs Press, 1956. 878p. $10.

Mantinband, J. H. Dictionary of Latin Literature. New York, Philosophical Library, 1956. 303p. $7.50.

Harkins, W. E. Dictionary of Russian Literature. New York, Philosophical Library, 1956. 439p. $10.

Newmark, Maxim. Dictionary of Spanish Literature. New York, Philosophical Library, 1956. 352p. $7.50.

The New Century Handbook of English Literature. Edited by Clarence L. Barnhart and William D. Halsey. New York, Appleton-Century-Crofts, 1956. 1,167p. $12.

Halliday, F.E. A Shakespeare Companion, 1550-1950. New York, Funk & Wagnall, 1952. 742p. $8.50.

Hart, J.D. Oxford Companion to American Literature. 3d ed. New York, Oxford, 1956. 890p. $10.

Coan, O., and Lillard, R.G. America in Fiction. 4th ed. Stanford, Stanford University Press, 1956. 208p. $3.

Kurtz, K. Literature of the American Southwest. Los Angeles, Occidental College, 1956. 63p. $3.

Rideout, W.B. Radical Novel in the United States, 1900-1954. Cambridge, Harvard University Press, 1956. 347p. $6.

Fadiman, Clifton. American Treasury, 1455-1955. New York, Harper, 1955. 1108-xxxiip. $7.50.

Webster's New World Dictionary of the American Language. Encyclopedic ed. Cleveland, World Publishing Company, 1951. 2v. $22.50.

_____ College ed. 1953. $5.75; Thumb indexed, $6.75.

_____ Concise ed. 1956. 882p. $3. Thumb in- $3.75.

Shorter Oxford English Dictionary on Historical Principles. 3d ed. New York, Oxford University Press, 1955. 2,515p. Library price, $14.18; Indexed, $15.68.

A Dictionary of Americanisms on Historical Principles. Edited by Mitford M. Mathews. Chicago, University of Chicago Press, 1951. 2v. $50.

Berrey, Lester, and Van Den Bark, Melvin. The American Thesaurus of Slang. 2d ed. New York, Crowell, 1953. 1,272p. $6.95.

Collison, R.L. Dictionaries of Foreign Languages. New York, Hafner, 1955. 210p. $4.

Adams, F.P. FPA's Book of Quotations. New York, Funk & Wagnalls, 1952. 914p. $5.95.

The Oxford Dictionary of Quotations. 2d ed. London, Oxford University Press, 1953. 1,003p. 42s.

Stevenson, B.E., ed. Home Book of Quotations. 8th ed. rev. New York, Dodd, 1956. 2,836p. $20.

Bartlett, John. Familiar Quotations. 13th ed. Boston, Little, 1955. 1,614p. $10.

Hamilton, R.M. Canadian Quotations and Phrases, Literary and Historical. Toronto, McClelland and Stewart, 1952. 272p. $8.

Chapin, John, ed. Book of Catholic Quotations. New York, Farrar, 1956. 1,073p. $8.50.

Baron, Joseph, ed. Treasury of Jewish Quotations. New York, Crown, 1956. 637p. $5.95.

The Kenkyusha Dictionary of English Quotations... Edited by Sanki Ichikawa, etc. Tokyo, Kenkyusha, 1952. 968p.

Fine Arts

Wolf, Martin L. Dictionary of the Arts. New York, Philosophical Library, 1951. 797p. $10.

Cheney, Sheldon. A New World History of Art. College ed. New York, Dryden, 1956. 676p. $5.90.

Robb, D.M., and Garrison, J.J. Art in the Western World. 3d ed. New York, Harper, 1953. 1,050p. $6.

Bénézit, Emmanuel. Dictionnaire Critique et Documentaire des Peintres, Sculpteurs, Dessinateurs et Graveurs de tous les Temps et de tous les Pays. Nouv. ed. Paris, Grund, 1951-1955. 8v.

Vance, Lucile E. Illustration Index. New York, Scarecrow Press, 1957. 192p. $4.

Architecture

Hamlin, Talbot. Forms and Functions of Twentieth-Century Architecture. New York, Columbia University Press, 1952. 4v. $75.

American Architects Directory. Edited by George S. Koyl. New York, Bowker, 1955. 723p. $20.

Saylor, Henry H. Dictionary of Architecture. New York, Wiley, 1952. 221p. $4.50.

Ware, Dora, and Beatty, Betty. A Short Dictionary of Architecture, Including Common Building Terms... 3d ed. (rev. and enl.) London, Allen & Unwin, 1953. 136p. 12s. 6d.

Osborne, Arthur L. A Dictionary of English Domestic Architecture. London, Country Life, 1954. 112p. 21s.

Harvey, John, comp. English Mediaeval Architects: a Biographical Dictionary Down to 1550. London, Batsford, 1954. 412p. 75s.

Colvin, Howard M. A Biographical Dictionary of English Architects, 1660-1840. Cambridge, Harvard University Press, 1954. 821p. $12.50.

Painting

Encyclopedia of Painting: Painters and Painting of the World from Pre-historic Times to the Present Day. Edited by Bernard S. Myers. New York, Crown, 1955. 511p. $10.95.

Dictionary of Modern Painting. General editors: Carlton Lake and Robert Maillard. New York, Tudor, 1956. 328p. $6.50.

Robb, David M. The Harper History of Painting: the Occidental Tradition. New York, Harper, 1951. 1,006p. $7.50.

Munsterberg, Hugo. Twentieth Century Painting. New York, Philosophical Library, 1951. 102p. $5.

Grant, M.H. A Dictionary of British Landscape Painters from the 16th Century to the Early 20th Century. Leigh-on-Sea, Lewis, 1952. 233p. £7 7s.

Auerbach, Erna. Tudor Artists: A Study of Painters in the Royal Service and of Portraiture on Illuminated Documents... London, University of London, Athlone Press, 1954. 222p. $12.50.

Grant, M.H. A Dictionary of British Etchers. London, Rockliff, 1952. 232p. 30s.

Monro, I.S. and K.M. Index to Reproductions of European Paintings. New York, Wilson, 1956. 668p. $12.50.

Brooke, Milton, and Dubester, H.S. Guide to Color Prints. Washington, Scarecrow Press, 1953. 269p. $4.50.

UNESCO. Catalogue of Colour Reproductions of Paintings. 2v. vol. 1, prior to 1860, 254p. pap. $3.50; vol.2, 1860-1955, 294p. pap. $3.50. Int. Doc. Service - Columbia, 1955.

Sculpture

Grant, M.H. A Dictionary of British Sculptors from the XIIIth Century to the XXth Century. London, Rockliff, 1953. 317p. 50/

Gunnis, Rupert. Dictionary of British Sculptors, 1660-1851. London, Odhams, 1953. 514p. 63s.

Antiques

Gloag, John. Short Dictionary of Furniture. London, Allen & Unwin, 1952. 565p. $6.30.

Wenham, Edward. Antiques A to Z. New York, Crowell, 1955. 159p. $3.50.

Drepperd, C. W. A Dictionary of American Antiques. New York, Doubleday, 1953. 416p. $5.95.

Ceramics

Kovel, R. M. and T. H. Dictionary of Marks -- Pottery and Porcelain. New York, Crown, 1953. 288p. $3.

Cushion, J. P., and Honey, W. B., comps. Handbook of Pottery and Porcelain Marks. New York, Pitman, 1957. 476p. $10.95.

Picken, Mrs. Mary B. Fashion Dictionary. New York, Funk & Wagnalls, 1957. 397p. $8.50.

Hobbies

Cabeen, R. M. Standard Handbook of Stamp Collecting. New York, Crowell, 1957. 628p. $5.95.

Reinfeld, Fred. Treasury of the World's Coins. New York, Sterling, 1954. 224p. $3.95.

Pritchard, M. E. A Short Dictionary of Weaving. New York, Philosophical Library, 1956. 196p. $6.

Kingery, R. E. How-to-do-it Books: A Selected Guide. 2nd ed. rev. New York, Bowker, 1954. 287p. $4.50.

Music

Grove's Dictionary of Music and Musicians. 5th ed. Edited by Eric Blom. St. Martin's Press, 1954. 9v. $127.50.

Scholes, P. A. Oxford Companion to Music. 9th ed. New York, Oxford University Press, 1955. 1,195p. $19.

Darrell, R. D. Schirmer's Guide to Books on Music and Musicians; A Practical Bibliography. New York, Schirmer, 1951. 402p. $6.

Mattfield, Julius. Variety Music Cavalcade, 1620-1950; A Chronology of Vocal and Instrumental Music Popular in the United States. New York, Prentice-Hall, 1952. 637p. $10.

Feather, Leonard. The Encyclopedia of Jazz. New York, Horizon Press, 1955. 360p. $10.

Ewen, David. European Composers Today. New York, Wilson, 1954. 200p. $4.

American Society of Composers, Authors and Publishers. The ASCAP Biographical Dictionary of Composers, Authors and Publishers. 2d ed. New York, Crowell, 1952. 636p. $5.

Ewen, David. Encyclopedia of the Opera. New York, Hill and Wang, 1955. 594p. $7.50.

Kobbé, Gustav. Kobbé's Complete Opera Book. rev. ed. New York, Putnam, 1954. 1,262p. $10.

Clough, F.F., and Cuming, G.J. The World's Encyclopedia of Recorded Music. London, Sidgwick and Jackson and New York, Gramophone Corporation, 1952. 890p. $17.50.

_____ First supplement (April 1950-May, June 1951) pp. 725-790.

_____ Second supplement (1951-1952) London, Sidgwick and Jackson, 1953. 262p.

Guide to Long-Playing Records. New York, Knopf, 1955. 3v. $11.50.

Myers, Kurtz, comp. Record Ratings. New York, Crown, 1956. 440p. $5.95.

Theatre

Baker, Blanch M. Theatre and Allied Arts: A Guide to Books Dealing with the History, Criticism, and Technic of the Drama and Theatre and Related Arts and Crafts. New York, Wilson, 1952. 536p. $10.

British Drama League. Library. Player's Library. London, Faber & Faber, 1950. 1,115p. 30s.

_____ First supplement (1951) 128p. 8s. 6d.

_____ Second supplement (1954) 256p. 21/

Granville, Wilfred. Theater Dictionary: British and American Terms in the Drama, Opera and Ballet. New York, Philosophical Library, 1952. 227p. $5.

Hartnoll, Phyllis, ed. The Oxford Companion to the Theatre. 2nd ed. London, New York, Oxford University Press, 1957. 887p. $11.50.

Entertainment

U.S. Copyright Office. Motion Pictures, 1912-1939. Washington, Government Printing Office, 1951. 1,256p. $18.

U.S. Copyright Office. Motion Pictures, 1894-1912. Washington, Copyright Office, Library of Congress, 1953. 92p. $2.

U.S. Copyright Office. Motion Pictures, 1940-1949. Washington, Library of Congress, 1953. 599p. $10.

MacLanachan, William. Television and Radar Encyclopedia. New York, Pitman, 1954. 216p. $6.

Ballet

Balanchine, George. Complete Stories of the Great Ballets New York, Doubleday, 1954. 615p. $5.95.

Religion and Philosophy

American Theological Library Association. Index to Religious Periodical Literature; An Author and Subject Index to Periodical Literature, 1949-1952. The Association, 1953. 220p. $6.

American Theological Library Association. Index to Religious Periodical Literature...1953-54. Chicago, American Library Association, 1956. 121p. $7.50.

Barrow, John G. A Bibliography of Bibliographies in Religion. Ann Arbor, Michigan, Edwards Brothers, 1955. 489p. $15.

Diehl, Katharine S. Religions, Mythologies, Folklores: An Annotated Bibliography. New Brunswick, New Jersey, Scarecrow Press, 1956. 315p. $6.50.

Twentieth Century Encyclopedia of Religious Knowledge: An Extension of the New Schaff-Herzog Encyclopedia of Religious Knowledge. Grand Rapids, Michigan, Baker Book House, 1955. 2v. $13.50.

Wright, George E., and Filson, Floyd V. The Westminster Historical Atlas of the Bible. rev. ed. Philadelphia, Westminster Press, 1956. 130p. $7.50.

Grollenberg, Lucas H. Atlas of the Bible. London, New York, Nelson, 1956, 165p. $15.

Kraeling, Emil G.H. Rand McNally Bible Atlas. Chicago, Rand McNally, 1956. 487p. $8.95.

The Interpreter's Bible: The Holy Scriptures in the King James and Revised Standard Versions with General Articles and Introduction, Exegesis, Exposition for each book of the Bible. New York, Nashville, Abingdon-Cokesbury Press, 1951-1957. $8.75 each.

Woods, Ralph L., ed. The Catholic Companion to the Bible. Philadelphia, Lippincott, 1956. 313p. $3.95.

Steinmueller, John E., and Sullivan, Kathryn. Catholic Biblical Encyclopedia. New York, J.F. Wagner, 1956. 2 parts in one volume. $20.

Young, Robert. Analytical Concordance to the Bible. New York, Funk & Wagnall, 1955. $11.

Nelson's Complete Concordance of the Revised Standard Version Bible. Compiled under the supervision of John W. Ellison. New York, Nelson, 1957. 2,157p. $16.50.

Miller, Madeleine S. and J.L. Harper's Bible Dictionary. New York, Harper, 1952. 851p. $7.95.

Deen, Edith. All of the Women of the Bible. New York, Harper, 1955. 410p. $4.95.

Attwater, Donald, comp. A Dictionary of Mary. New York, Kenedy, 1956. 312p. $6.50.

Butler, Alban. Butler's Lives of the Saints. New York, Kenedy, 1956. 4v. $39.50.

Roeder, Helen. Saints and Their Attributes; with a Guide to Localities and Patronage. Chicago, Regnery, 1956. 419p. $3.75.

The Mennonite Encyclopedia; a Comprehensive Reference Work on the Anabaptist-Mennonite Movement. Scottdale, Pennsylvania, Mennonite Publishing House, 1955- 4v. $38.50.

Lutheran Cyclopedia. Erwin L. Lueker, Editor-in-Chief. St. Louis, Concordia Publishing House, 1954. 1,160p. $7.50.

Shorter Encyclopaedia of Islam. Edited by H.A.R. Gibb and J. H. Kramers. Ithaca, Cornell University Press, 1956. 679p. $12.75.

Rosten, L.C., ed. A Guide to the Religions of America. New York, Simon & Schuster, 1955. 281p. $3.50.

Mead, Frank S. Handbook of Denominations in the United States. rev. & enl.ed. New York, Abingdon Press, 1956. 255p. $2.95.

Fremantle, Anne. The Age of Belief. Boston, Houghton Mifflin, 1954. 218p. $2.75.

SCIENTIFIC AND TECHNICAL REFERENCE WORKS SINCE 1950

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In preparing this paper, the author turned first to Science Reference Notes which is an interesting and useful tool to anyone concerned with scientific and technical reference materials and a ready launching platform for the points which follow. Published by the science libraries of Columbia University, this is a thorough-going report on new reference materials in the sciences. Since most of the science libraries at Columbia contribute to it, the annotations reflect the special concern and interests often lacking in the broader surveys of reference materials.

During a three year period, less than half the time under consideration in this paper, Science Reference Notes listed and annotated over three hundred separate works. Since 1950, using the same basis of selection as the editors of Science Reference Notes, nearly one thousand scientific and technical reference works have appeared. Obviously, space does not permit a thorough description of all these but this growth does point up the changes in scientific literature since the beginning of World War II. These changes stem from three primary factors: (1) the tremendous increase of the literature itself; (2)the problem of the foreign language publications; and (3) the emergence of new types of materials, such as "Reports" which began during the war.

The increase of scientific and technical literature is largely a result of the increase in scientific and technical serial publications. It has been estimated that in 1955 more than 1 3/4 million articles appeared in more than 30,000 journals, of which some expert--probably self-appointed--has said "3/4 of a million articles in 15,000 journals are worth preserving." In the field of chemistry alone, Chemical Abstracts indexes and abstracts more than 7,000 journals. A hundred years ago there were several chemists, including Remsen in this country, who were reputed to keep up with every article published in the world's chemical journals. Today it has been calculated that if

a man were to devote his entire time to reading the chemical literature, and were to spend eight hours a day five days a week, for an entire year, --at the end of this time, he would already be ten years behind schedule. All of this stems from the fact that science and technology are overwhelmingly cumulative subject areas, in which the sum total of knowledge is based upon millions of separate contributions, one upon the other, across the years. It was recently estimated that more scientific work has been done in the past thirty-five years than in all the centuries which went before, and that in chemistry, more work has been done in the last eighteen years than in all the previous history of the field. This is the strength of the structure, and at the same time, currently its weakness. The problem becomes increasingly, not so much a matter of determining whether certain information is available, but rather where it is, and how to find it. There are countless instances of duplicated effort, and wasted time resulting from either the innate difficulty of finding pertinent literature on scientific or technical subjects, or from the natural impatience of the scientific and technical man with so tedious a matter as literature searching. For example, a government sponsored project employed a team of research people for ten years, only to discover at the end of that time, that Japanese investigators had tackled and solved the problem twenty years earlier. Another research chemist recently reported that his agency had been at work on a problem for more than a year, only to open a Chinese journal by accident, and find a detailed report and solution dealing with the very same problem. Too often in science today, the left hand does not know what the right hand is doing.

Serial publications, such as, the proceedings, bulletins and journals of scientific societies; trade journals; annual reviews; house organs, and the searching tools which the science reference librarian uses, are the heart and core of the technical library. This is so much the case that a "research library" can often be defined in terms of the proportion of bound volumes of serials to the total number of volumes in the collection. If the serials approach something like 65 per cent of the total number of volumes in the library, it is probably a "research collection." Andrew Osborn of the Harvard University Library estimated such a proportion to be true even of such large research libraries as the Harvard Library and the Library of Congress.

Since the appearance of the first scientific journals in 1665, about 100,000 different serial titles have appeared--

some to stay on the scene for three hundred years and others to disappear after a few issues. An increasingly apparent characteristic of the literature of the sciences is the publication of its findings and its data in journals rather than in books, for books are always limited in the amount of information they can cover, and are likely to go out-of-date quickly. Studies have been made, based upon the number of citations in a wide range of bibliographies, which refer to articles published in journals, compared to the number of citations referring to books. The results would indicate that in chemistry, about 93 per cent of everything now published, appears in journals, then in descending order of concentration, come physics, the biological sciences and mathematics. Even in mathematics the proportion is about 45 per cent in the journals, compared with 55 per cent of the published mathematical literature in books. Because of the all-important role of mathematics in recent years, in all areas of research, and the amount of current applied mathematical research, this figure is also rapidly shifting and may be reversed by this time, bringing just about every broad scientific and technical discipline across the 50 per cent line.

Since this predominance of scientific and technological serial literature causes many of the technical libraries' problems, the development of various abstracts and indexes, the primary tools to this literature, will be considered first.

Chemical Abstracts is perhaps the finest such tool in all the sciences, and perhaps in any field of knowledge. It now covers more than 7,000 journals, and is preparing the next decennial index covering the ten-year period 1946-56. The work being done is still of superb quality, but it has problems, chiefly economic, which are now beginning to beset libraries, too, as part of a chain reaction. Its price for the annual service was raised in recent years, because of a recurring deficit of nearly one-half million dollars--which is too much even for the richest scientific society in the world to bear. Moreover, the new decennial index, which will appear in some nineteen volumes, will cost in the neighborhood of $1,000.00. The problem for many medium-sized libraries become quite obvious. If Chemical Abstracts continues to do its job adequately, it will price itself out of the market, and so far as librarians are concerned, will gradually limit research and reference work in chemistry to the largest and most affluent libraries. Moreover, within the last few weeks, the Executive Board of the American Chemical Society has announced that this decennial index is the last one to be issued by the Society,

a rather mournful commentary on the economic realities involved. And this is only one of many fields in science and technology. What is really needed is a universal tool which will do for all fields of science somewhat the same quality and quantity job Chemical Abstracts does for its own area. How to meet the cost of such a tool, if Chemical Abstracts itself has become too expensive, is difficult to answer. However, many billions are spent annually for research and it would seem logical that some of these funds should be earmarked for controlling the literature which flows from it in such torrents. As yet no attempt at such a project in the English language has been made, except for the International Catalogue of Scientific Literature and the Royal Society Catalogue, but roughly in the period under consideration, two efforts have been launched, one in French and one in Russian.

The Bulletin Analytique, begun in 1940, with a change of title to Bulletin Signalétique in 1956, is a French effort to centralize scientific abstracting services and to publish abstracts that cover all the sciences, in one journal. It makes some concessions, however, by disregarding agriculture, engineering and medicine and concentrating on the so-called pure and applied sciences--outside these limits. French university theses and dissertations and reports of scientific congresses are also covered. However, the abstracts are very brief, amounting in many cases only to a sentence or two. The service is very prompt, and this is its chief advantage, for it permits the user to scan current research and the new books. It has an annual author index, but no subject index--once again reducing its usefulness.

On another level, and undoubtedly a much more important universal scientific abstracting service, is the Russian series of Referativnyi Zhurnal. Begun during the fifties and now swinging into full stride, this publication abstracts, in separate series, the world literature of astronomy and geodesy, biology, physics, geology and geography, chemistry, biological chemistry, mathematics, and mechanics. Judging by the speed with which this program has developed, more is still to come, making it eventually, a truly universal abstracting tool for all of science and technology. In typical totalitarian fashion, the Soviet Institute of Scientific Information was established in Moscow with some 1,500 people assigned to it to handle this mammoth abstracting responsibility. All series have the same general organization,--each issue with an author index and non-Russian authors given in both the Russian and Latin alphabet. The abstracts themselves are all in Rus-

sian, but for non-Russian papers the title and authors' names are given in the original language. There are annual indexes by author and subject. Dissertations are abstracted, books are reviewed, and some newspaper articles are abstracted. A feature of some of the sections is the inclusion of a Chinese index in Chinese characters. This Russian coverage of literature emanating from presently inaccessible areas (from the American point of view) is already an important and significant contribution and it shows every sign of increasing in significance. There are some encouraging indications of a cooperative spirit among these Russian scientists which may have promise for the future. The Applied Mechanics Reviews, published in this country and concerned with a subject area of great importance in this age of guided missiles and rocket ships, has worked out an agreement recently, in which many reviews taken from the Referativnyi will be carried in the A.M.R., bearing the original Referativnyi number. The Referativnyi will forward copies or microfilms of the original articles to A.M.R., thus making available to American researchers a variety of iron and bamboo curtain publications, otherwise difficult to obtain. In return A.M.R. will send microfilm of articles indexed in its pages which are desired by the Referativnyi editors.

With all this emphasis upon Russian and other languages, the translation problems have increased in the fifties. The number of Russian journals covered in Chemical Abstracts has steadily grown, and two weeks ago Biological Abstracts announced that in 1958 coverage of Russian biological research literature will be doubled through the generous assistance of the Foreign Science Information Program of the National Science Foundation, providing the funds for translation. In 1953, the first Bibliography of Translations from Russian Scientific and Technical Literature appeared, issued by the Scientific Translations Center at the Library of Congress. The old file of the Special Libraries Association Translations, maintained at several locations by the S.L.A., was taken over by John Crerar in 1954, and the first volume of the S.L.A. Translation Monthly appeared in 1955, covering languages other than Russian. Beginning in January, 1957, this Science Translation Center of S.L.A. assumed services formerly provided by the Library of Congress Center, and all Russian translations from L.C. were added to the S.L.A. Center at John Crerar. This journal, Translation Monthly, now appears regularly, classified by subject, with an author index in each issue. Copies of the original papers, when available are loaned to other libraries,

at a fee, and photostats or microfilm copies may be ordered directly from the Center.

In the British Isles the Department of Scientific and Industrial Research began in 1949 the Translated Contents Lists of Russian Periodicals. This publication now covers something under fifty Russian journal titles with a translated title for each article in each issue of these journals. The periodicals covered are broadly of scientific and technical interest to industry, and no attempt is made to include agricultural and medical titles. The July, 1957, issue announced a scheme for cooperative translation of articles appearing in this selected list, by volunteering to participate in the cost of translation whenever two or more requests are received for full translation. The A.M.R. used the translations of titles made by this British organization for its own listing of Russian articles taken from the Referativnyi, and in return, will send the D.S.I.R. microfilm of all items received directly from the Russian journals.

All of this may seem to give undue emphasis to a special and limited problem in the scientific literature but there is every indication that it will be one of the most serious problems in the years ahead. Machine translation is also moving ahead with great impetus.

There would seem to be considerable confusion about the quality of Russian scientific work, for at times it is overemphasized, and occasionally minimized. Both have their dangers. The truth probably is that Russian work has the usual spread, wherevér great quantities of research and reporting are involved--everything from poor to excellent quality. Some chemists report that in various fields of chemical technology where the Russians are relative newcomers, the work is often hasty, and untidy. On the other hand in fields where Russians have long been preeminent, such as in many divisions of applied mechanics, the work is as good or better than anything else in the world. In a field such as elasticity, for instance, this should not come as a surprise, for even the standard American work in this field bears a Russian name on the title page--Timoshenko--a scientist who emigrated from Russia long before the current regime was established in power. Sometimes, however, a surprising development occurs, such as the American petroleum team, invited to Russia to visit the oil fields, that saw everywhere in these fields a working and efficient turbine-driven drill, and came home with specimens, which are now at work in United States' fields.

Those who work with scientific and technical reference

materials are aware of another trouble spot which was born during the war and which remains, growing in size, and in problems. These are the so-called "Reports," numbering hundreds of thousands, published by many organizations and institutions, generally on contract for government agencies. These "Reports" have been restricted, confidential, top-secret, secret--often available in only one copy, even when released from restriction--and were often rarely circulated in more than a few copies. The Bibliography of Technical Reports with its successor title, U.S. Government Research Reports, has been generally the only approach to these reports, though some could be located through Nuclear Science Abstracts. These have been unsatisfactory and often frustrating to use, though they are now improving. In 1953, the S. L. A. issued a Correlation Index: Document Series and P. B. Reports, edited by Gretchen Runge, which helps to find the government P. B. number when only the number assigned by the issuing agency is known. It lists the abbreviations given to the agencies, alphabetically, with the series numbers and the corresponding P. B. numbers. This index covers the first seventeen volumes of the Bibliography of Technical Reports, however, trouble is still involved, because the Bibliography does not publish in the order of their P. B. numbers.

Another service offered by the Technical Information Service is an Index to P. B. Reports listed in volumes 11-22 of the U.S. Government Research Reports. This is a paper-back spiral bound index and includes a numerical and correlation index, a key to documents series abbreviations, and several special lists covering patents, Russian translations, and review reports from the Office of Scientific Research and Development, the Atomic Energy Commission, and the Field Intelligence Agency Technical. There is now also a current monthly service under the same title which has annual and semi-annual cumulations.

The U.S. Armed Services Technical Information Agency also began in 1953 a Title Announcement Bulletin, listing weekly unclassified reports in all fields of science which are available through the A.S.T.I.A. This is, however, designed for distribution to contractors only and the originals are available only to "qualified persons."

A much more cheerful prospect is afforded by the Rand Corporation Index of Publications, issued yearly, covering a wide range of research activities concerned with the security and public welfare of the United States. All these publications have been deposited with forty libraries throughout the country,

on the condition that they be loaned on interlibrary loan to other libraries. This is an example of a special series of "Reports" competently and sensibly handled.

Turning to new abstracts, both general and special, several have been issued with new titles, or changed titles. Technisches Zentralblatt began publication in 1951. It was designed to cover the applied sciences and engineering. Starting with electrotechnology in 1951 it is now abstracting about seven hundred periodicals in this field. Other sections of technology are gradually added and this tool will eventually include chemical technology, building and construction, textiles, mining, heat treatment of metals, and other topics. It follows the general scheme of Chemisches Zentralblatt and is arranged by class with an author index.

To replace the British Abstracts (discontinued in 1953), formerly British Chemical Abstracts, several new British publications have appeared. One is the Journal of Applied Chemistry which began in 1954 with a large abstract section. A second which appeared in the same year is the Current Chemical Papers which is a classified world list of new papers in pure chemistry. Only titles are given in this monthly publication, but this has some advantages over full abstracts because it is promptly published and in a rapidly developing field this service can be quite important. Still a third substitute for parts of British Abstracts is Analytical Abstracts, issued by the Society of Analytical Chemistry, beginning in 1954. It covers all fields of analytical chemistry. With all the troubles, economic and practical, which beset the great abstracts, their necessity is obvious because as soon as they die another title, (or more likely, several titles) are immediately born to take the place of the deceased.

Perhaps the most remarkable abstract and bibliography to appear in the fifties is the Meteorological Abstracts and Bibliography published by the American Meteorological Society. Begun in 1950, this abstract is divided into three parts, one giving abstracts of current meteorological material, the second dealing with cumulative annotated bibliographies of special topics such as hail, tornadoes, icing, etc. These bibliographies are retrospective, broad in coverage, and extremely useful. Part three of the Meteorological Abstracts deals with recent accessions, noting new materials in meteorology.

The U.S. Bureau of Mines during this period has begun publication of two new useful titles, the Geophysical Abstracts, now transferred to the U.S. Geological Survey, and the Synthetic Liquid Fuel Abstracts. Both are concerned with very

live subject areas of great importance in this period of intense geophysical exploration and research in new types of fuels.

A privately sponsored Crerar Metals Abstracts, starting in 1952 and dealing with limited areas in metallurgy, has also made a real contribution in the last few years.

The American Geological Society began in 1953 the publication of Geological Abstracts which serves to supplement to some extent the Bibliography of North American Geology which is usually late in appearing. Each of eleven cooperating journals supplies abstracts which are then arranged alphabetically by author under the title and issue of each journal. It has several disadvantages which restrict its usefulness--the subject index is too broad and the number of journals abstracted is very limited.

In connection with the whole field of scientific abstract publishing, guides to the sources of abstracts are needed now, too. Besterman's Index Bibliographicus, Vol. I, Science and Technology, 1952, is an international directory of current periodical abstracts and bibliographies. It was published by UNESCO. An S.L.A. Bibliography no. 9, which appeared in 1955, is called Bibliography of Engineering and Abstracting Services and is a very useful compilation. In Great Britain the Royal Society issued in 1950 a ninety-five page booklet called List of Periodicals and Bulletins Containing Abstracts Published in Great Britain. This gives in an appendix a partial list for the British Commonwealth countries.

Increasingly, the technical reference librarian needs to know the special abstracting sources which round out and supplement the broader general abstracts and indexes, if only to refer them to his questioner. In many cases they are attractive enough to people and institutions working in very restricted fields that such people will be interested in securing these services for their own organizations, even if a library feels that it cannot add them.

Union catalogs of periodicals and serials are vitally important to scientific and technical libraries. They are significant not only for the matter of locating titles, but also for the purpose of identifying and verifying titles in this day of scientific journal proliferation. Even union lists from Australia, such as the Union Catalogue of the Scientific and Technical Periodicals in the Libraries of Australia and the UNESCO List of Scientific and Technical Journals Published in South East Asia, one dealing with foreign serials in Swiss libraries, and a union list of periodicals in New Zealand libraries, can serve a very useful purpose. Of course, the Serial Titles issued by

the Library of Congress are widely known and used. In Great Britain two publications in this field are worth mentioning. One is an old standby, the World List of Scientific Periodicals, 1900-1950, now available in a third edition and the other is the British Union Catalogue of Periodicals, the first two volumes of which appeared in 1955. This is a record of the periodicals from the seventeenth century to the present day (in whatever language and whatever subject). A new feature to the World List is the inclusion of data of some titles not held in any British libraries, and also an English index to subject words of international congresses.

Another group of publications, usually called "Guides," deal with specific and limited areas of science and technology. Since 1950, two supplements have appeared to the Hawkins' Scientific and Technical Books Published in the U.S.A. The high caliber of the printing and legibility remains the same as in the original edition and the full, carefully organized annotations are continued in these supplements. For a library working with any aspect of scientific and technical books in the United States, this is an essential and invaluable guide, a useful book for selection, for appraisal, and for literature searches. Spurred on by the example offered by Hawkins, the British in 1956 produced ASLIB's British Scientific and Technical Books ...1935-1952. This brings up to date the only previous extensive bibliography of British books in this field which was the Catalogue of British Scientific and Technical Books, published nearly thirty years ago, in 1930. It attempts to cover the most important and useful books published between 1935 and 1952 and is based largely on the Booklist published by ASLIB since 1935. There is still a gap, therefore, between 1930 and 1935, but the British National Bibliography will provide the searcher with coverage for the period after 1952.

In guides to the literature of science there are a number of excellent aids published since 1950, in addition to the Science Reference Notes which was previously described. At the University of Illinois, Frances B. Jenkins published in 1954 a mimeographed classified list of great usefulness, entitled Science Reference Sources. It is concerned with all the sciences and industrial arts by various type categories: dictionaries, encyclopedias, bibliographies, etc. Another such guide was issued by Thomas Fleming at Columbia University in 1952, called a Guide to the Literature of Science. This guide is less extensive than Mrs. Jenkins' since it excludes agriculture, engineering, and medicine.

The much lamented George Sarton in 1952 wrote A Guide

to the History of Science which is much more than the title might indicate. There are notes on the older encylopedias, biographical sketches, lists of international congresses with their dates, discussion of the various journals, all written in Mr. Sarton's inimitable style. It is a delightful and most useful reference work.

In physics, Robert Whitford published in 1954 a guide called Physics Literature. It is a survey of physics literature at the college level, based upon a variety of approaches--the bibliographical, experimental, mathematical, educational, and so on. It is an excellent little book which can profitably be used with Parke's Guide to the Literature of Mathematics and Physics, published in 1947. Chemistry has always been well supplied with literature guides, when compared with the other sciences. In the last seven years two new works have appeared, as well as a new edition of one of the best ever published. The American Chemical Society Division of Chemical Literature issued in 1951, as no. 4 of its Advances in Chemistry series, a title called Searching the Chemical Literature. This is a somewhat different approach than the other chemical guides follow, since it is made up of some twenty-four separate papers on different kinds of literature searching. George Dyson's Short Guide to Chemical Literature is a British contribution intended for the student and constituting a brief guide to the main sources of chemical literature used in research. A new edition of the best literature guide in chemistry, Crane and Patterson's Guide to the Literature of Chemistry appeared this year. Published in 1927 as the first comprehensive work in its field, by two distinguished literature chemists, this edition is largely the work of the third author, Eleanor B. Marr. All of the fine qualities of the earlier edition have been retained but it has been brought thoroughly up-to-date even to the inclusion of materials after the book was prepared for press. It is a model work of its sort and reveals something new at every examination. Sarton's work and this one are far more than compilations; for they reflect the learning, experience, and wisdom of their distinguished authors on almost every page.

The first comprehensive guides to appear in geology were published in 1951 and 1953. R. M. Pearl's Guide to the Geologic Literature is a handsome, comprehensive book, organized into three sections dealing with research methods, library facilities, and specific types of materials. The experts say that it failed to stress the regional approach to geology, as well as underemphasized governmental series and maps. Brian Mason's Literature of Geology serves to complement Pearl's

book in these respects, at least to some extent, for its arrangement is based upon a regional division--world, continent, and country classification. So where a previous void existed there are now two aids, not duplicating each other but making up for each other's deficiencies. Unfortunately, this is not always the case.

In the biological and medical sciences, while there is nothing to equal the chemical guides, there are several new publications: R. C. Smith's Guide to the Literature of the Zoological Sciences, second edition; Jones and Doe's Handbook of Medical Library Practice, second edition; and Robert S. Daniels and C. M. Louttit's Professional Problems in Psychology. This last book has two sections comprising a guide to the literature of psychology and forming in part, a revision and expansion of Louttit's earlier Handbook of Psychological Literature, published in 1932. The 1955 Harvard List of Books on Psychology is also useful in this area.

Milek's Guide to Foreign Sources of Metallurgical Literature is concerned with associations, periodicals, abstract services, standardizing agencies, statistical sources, metallurgical books, bibliographies, etc., and brings up-to-date the material in Rimbach's How to Find Metallurgical Information which appeared in 1936.

In turning now to some of the special interest bibliographies in particular scientific and technical areas, J. L. Thornton's Scientific Books, Libraries and Collections; A Study of Bibliography and the Book Trade in Relation to Science deals with the history of science. Somewhat earlier, Thornton had written a similar book for the history of the medical literature and the collecting of medical source material. These two books taken together fill a definite need in the areas of science and medicine. There is a growing interest in scientific history, evidenced by the establishment of several History of Science departments in midwestern universities in recent years and by the growth and expansion of the journals dealing with the history of science; these books will provide a new impetus to the movement. Thornton outlines the production, distribution, and storage of scientific literature from the earliest times and describes in a delightful fashion those books and journals which have played vital roles in the advancement of scientific thinking. It is an organized, fully documented, running account of the epochal books in scientific history. Weeks' Discovery of the Elements and Terek's Scientific Expeditions will also be of interest to those working in the history of science.

The Bibliography of Solid Adsorbents, 1943 to 1953, published in 1956 by the U.S. Bureau of Standards, is an example of a bibliography of an extremely technical subject. The actual definition of adsorption is not likely to be known by anyone without a scientific or technical background, however, this 1,528 page book is a badly needed and welcome addition to the reference shelf. It brings up-to-date a previous bibliography covering the period of 1900-42, and affords an excellent example of the way the technical literature multiplies. The earlier forty year period had only half the entries found in the last ten year period. Adsorption,(not to be confused with absorption and sounding like an extremely limited topic to the average ear), obviously has wide application and interest in science and industry. The technical reference librarian must always be alert to the fact that although he has only the vaguest knowledge of a term suddenly sprung on him, he may well find a 1,500 page bibliography dealing with it. Another example of the specialized bibliography is Margaret R. Murray's Bibliography of the Research in Tissue Culture 1884-1950; An Introduction to the Literature of the Living Cell Cultivated in Vitro. This work fills two volumes, lists 15,000 articles from 1,035 journals, with cross indexing, making a total of 86,000 entries.

Electronics is a very familiar term in this period which is sometimes called the "Electronic Age." However, electronics is hardly one subject anymore but has many specialties. Wayne B. Nottingham in his Bibliography on Physical Electronics felt constrained to indicate that in his 428 page bibliography he was not covering industrial electronics, for one instance. He limits himself, moreover, to papers appearing between 1930 and 1950 with only occasional mention of any papers between 1900 and 1930. Specialization has gone a lot further in many other fields, for example, the Journal of Physical Chemistry was a newcomer in chemistry not too many decades ago, but now the Journal of Chemical Physics divides further an already well-divided subject. Mathematics, biology, and physics have always had a large supply of journals but now there is a well-defined field of mathematical-bio-physics with its own literature and its own journal.

Since this is the International Geophysical Year, two bibliographies on the Artic and the Antaractic should be pointed out. The first was published by the U.S. Department of Defense under the direction of the Arctic Institute of North America, and the other by the U.S. Bureau of Aeronautics of the Navy Department. The Arctic Bibliography, in seven volumes, is a mammoth undertaking, covering everything dealing with

the Arctic including the geophysical sciences, geographical sciences, biological sciences, geographical exploration, and many others. It is arranged somewhat like Nickle's Index of North American Geology (by author in chronological order, with a detailed subject index) and should be an inexhaustible source of references wherever the Arctic is in question. The Antarctic Bibliography is much more limited, simply because the available literature is more limited. It lists, however, 5,500 items, classified with an author index. The present investigations in Antarctica by cooperating nations throughout the world should serve to increase the total amount of information about the southern extremity of the globe, but for the time being the Antarctic Bibliography will serve a very useful purpose.

Another topic of interest in the International Geophysical Year is that of meteorites. Harrison Brown published in 1953 a Bibliography of Meteorites as the first volume of a three volume work which should stand for many years as the definitive bibliography in its field. This volume is a chronologically arranged bibliography of world literature on meteorites and related subjects. The volumes to come will contain alphabetical and geographical indexes of all meteorites, tables of chemical analysis, and tables of locations for meteorites in various collections. The articles in volume one have been extracted from 1,068 technical journals and 840 books.

In the biological-medical sciences, a number of bibliographies are of general interest:

(1) A Bibliography of Infantile Paralysis, 1789-1949, edited by Fishbein and Salmonsen and published by the National Foundation for Infantile Paralysis in 1951. This is a second revised edition and is a chronological list, on an international scale, including periodical and monograph references.

(2) Classified Bibliography of Gerontology and Geriatrics by Nathan W. Shock, 1951. This is a six hundred page bibliography dealing with a topic of great current interest in all its aspects from biochemistry to its social implications.

(3) Raymond Irwin's British Bird Books; An Index to British Ornithology, A. D. 1481 to A. D. 1948, published by Grafton in London in 1951.

(4) Selman A. Waksman's The Literature of Streptomycin, 1944-52, a second edition with nearly 6,000 references.

(5) The Aureomycin Bibliography and Index, issued by the Lederle Laboratories in 1952. This covers 3,102 references with an author and subject index.

(6) Sophie V. Stephens' Annotated Bibliography of Radio

Biology, 1953. This was published by the U.S.A.E.C. Technical Information Service and covers material issued between 1932 and 1951. In view of the concern about fall-out a bibliography of this sort should be a timely tool.

Bibliographical tools for atomic energy were quick to appear after the war and with the publication of Nuclear Science Abstracts, the system of depositories set up by the A.E.C., the fairly speedy publication of monographs and series of monographs dealing with all available aspects of nuclear science, the technical literature requirements have been fairly well met and controlled. In the popular or more general approach several bibliographies are now available. The United Nations Atomic Energy Commission group prepared in 1950-51 an International Bibliography of Atomic Energy, 1925-1949 in two volumes. A supplement appeared in 1952. This work surveys the literature dealing with the political, economic, and social aspects of atomic energy--as well as the scientific aspects. Jane E. Boswell, in 1955, made available a quite popular guide to books and pamphlets, visual aids, and journal articles, called A Bibliography of Current Materials Dealing with Atomic Power and Related Atomic Energy Subjects for Non-specialists and Lay Persons. It can be used by anyone with an intelligent interest in the subject but who is not concerned with the myriad of extremely technical materials which make up the bulk of its published literature.

In engineering, two bibliographies are worth noting, one definitely intended for the specialist, and the other with broader possibilities. John L. Houghton's Constitutional Diagrams of Alloys; a Bibliography has been recommended for any library concerned with metallurgy, metallography, or allied subjects. It supersedes the previous edition and brings data in an important field of metallography up to the middle of 1955. A feature is the comprehensive list of Russian references for 1954-55 which was supplied largely by the U.S.S.R. Academy of Sciences. The other book, published in 1957, deals with the literature of hydrology-erosion, drought, evaporation, farm ponds, drainage, ground water, and many other topics of interest in soil science, forestry, agriculture, geology, and engineering. It was prepared by the American Geophysical Union, published by the U.S. Government Printing Office, and was called Annotated Bibliography on Hydrology 1941-1950.

The first of three works of quite general and popular appeal which will close this bibliographical listing is the Index to Handicrafts by Lovell and Hall which first appeared in 1936, with a supplement in 1943, and another in 1950. Once again

this old stand-by attempts to cover the field of published handicraft material and affords a fine bibliography of books, journals, and other materials, with a subject index to selected items within them. It is the kind of popular, useful index which should be in every library, large and small. Waldo Lincoln's American Cookery Books, 1742-1860 is a revision of an earlier work done at the American Antiquarian Society in Worchester. Published in 1954, it lists 740 titles of which some 250 are new in this edition. The arrangement is chronological with full bibliographical information for the student or the collector, and it locates copies of the books cited in twenty-four libraries. For the enthusiast about guns and shooting, Raymond Riling's book, Guns and Shooting; A Selected Chronological Bibliography, covers a wide range of topics, including works on artillery, bombs, fireworks and rockets, firearms in war and in sport, works on ballistics and gunmaking. Both the craftsman and the collector will be interested.

The encyclopedic treatment in the sciences, for obvious reasons, has always been a difficult, and seldom completely successful task. In many fields the growing number of comprehensive handbooks serve in the place of encyclopedias, as the German Handbücher in chemistry and physics have served for many years. Even today the new edition of the Handbuch der Physik now appearing regularly in a substantial edition, serves as an encyclopedia for all fields of physics though its arrangement is quite different from the traditional encyclopedia. It has the additional advantage for the American user in that it is now written partly in English and partly in German. The Kirk-Othmer Encyclopedia of Chemical Technology is now complete in fifteen volumes (supplement announced for 1957) in a handsome, legible, well-printed set with excellent bibliographies and is a chemical and chemical engineering tool which has no counterpart in English. Thorpe's so-called Dictionary of Applied Chemistry, recently completing its fourth edition in twelve volumes, is Kirk-Othmer's closest rival. Again these two works supplement one another, with Thorpe emphasizing British and European practice with a broader range of entries, and Kirk-Othmer reflecting its essentially American editorship and fewer, more comprehensive articles. These are ideal technical reference works which any library able to do so, should purchase and make available to its users.

The excellent German Ullmann Encyclopedia of Technical Chemistry is now issuing a revision of the older encyclopedia which was well known to chemists working in the literature. Publication began in 1951 and it is still in progress. Römpps

Chemie Lexikon is also appearing in a third edition. So, as is usual, the chemists seem to be better provided for than any other scientific workers.

Some other encyclopedias for chemists and chemical engineers which are now available in new works or new editions are as follows: George L. Clarke's Encyclopedia of Chemistry which is a fairly successful attempt at a one-volume encyclopedia with remarkably condensed treatment of a wide range of chemical topics. It includes chemical biographies, decriptions of various research institutes and agencies, and in general is a useful, quick guide to many aspects of chemistry which are sometimes difficult to find in the many-volumed standard chemical encyclopedias. A German work, one of the most important reference works in organic laboratory procedures, is the Houben-Weyl Methoden der Organischen Chemie, now in its fourth edition, which will appear eventually in fourteen volumes. In inorganic chemistry there is a new edition of Pascal's Inorganic Chemistry in French which attempts to describe all the elements and their compounds as well as their industrial aspects. Its bibliographies are excellent.

M.C. Sneed and J. Maynard began an eleven volume project in 1953 called Comprehensive Inorganic Chemistry which will be more of an advanced textbook than a formal encyclopedia. However, any textbook in eleven volumes will find many uses as an encyclopedia. In industrial chemistry, the Oxford Science of Petroleum has issued four supplements dealing with crude oils, synthetic products, refinery products, and the world's oil fields, which help to keep the worker in petroleum technology abreast of the recent developments.

Another encyclopedia dealing directly with chemical engineering is H. W. Cremer's Chemical Engineering Practice, begun in 1956, and scheduled for completion in twelve volumes. This is a monograph-type treatment by broad topics which claims to differ from Kirk-Othmer and Ullmann in being more broadly concerned with underlying principles than with the specific processes in chemical technology. Another industrial chemistry work which serves as an encyclopedia is the second edition of the Colour Index in four volumes. This has become the standard work on the subject in the English language.

In 1952, two electrical engineering encyclopedias made their appearance, one in England and one in this country. The American work, E.S. Lincoln's Industrial Commercial Electrical Reference, is a new edition of a one volume work designed for the people who handle electrical problems incident to industrial and commercial plant production. In the intro-

duction the authors firmly maintain that most electrical engineering reference books give little attention to operating and maintenance problems which require continuous attention daily and that this work is specifically designed for such purposes. Arranged by sections from A-Z, well-printed, and eminently practical-looking, the book would seem to meet the editors' claim. The English work by S. J. Stubbs, New Electrical Encyclopedia, in four volumes, claims to be the only alphabetical encyclopedia of electrical practice. It, too, is a practical appearing work with many plates, working diagrams, and illustrations of electrical equipment and machinery. For a library which can afford it both titles would be useful. If only one can be had the American title should be the first purchase.

An ambitious one volume Focal Encyclopedia of Photography was published in England in 1956. It contains 1,200 double column pages and deals with the techniques, art and business of photography. It aims to be a comprehensive reference source easy to consult, and free of obsolete information. Throughout, particular attention is paid to subjects about which information is not easily found elsewhere. Obvious emphasis is on British practice but where the dominant research or practice is of American origin, the relevant articles have been contributed by Americans. It is well-illustrated with line drawings and photographs, has many cross references, and an occasional book or article is cited. It is a good buy at $15.00.

A reference book and an encyclopedia which would be hard to classify is Geoffrey Grigson's Things; A Volume of Objects Devised by Man's Genius Which Are the Measure of His Civilization. This rather unusual book was published in New York by Hawthorn books but is an English work. It deals literally with "Things" from A to Z--from the Aeolian harp, the aeroplane, and artificial limbs to zip-fasteners. It discusses the invention of the wheel, the first smelters of iron, with much emphasis upon early history. The bothersome question about the origin of doll houses; the divining rod; the dental drill; Christmas trees and Christmas cards; the magnet, margarine, razors, smoking pipes, and safety pins may well be answered from this interesting compilation. Description of each item runs from one column to several pages.

In many fields of engineering the old "Handbooks" have taken on weight and have become encyclopedic, excellent sources for summarized, condensed information, including in some cases, bibliographies with the same pertinence and usefulness as those in full-scale encyclopedias. An interesting modern phenomenon is the appearance of very comprehensive

and competent handbooks in such special fields of engineering as electric lighting, plastics, plant engineering, production engineering, maintenance engineering, safety engineering, automotive engineering, and many others. Such a title would be Lloyd Hunter's Handbook of Semiconductor Electronics which is concerned with a relatively new field and attempts to gather in one place all the major principles of semiconductor electronics. This is intended for the specialist with previous background in physics. Colvin V. Davis' Handbook of Applied Hydraulics would be another example of a book designed for a special audience--both the student and the engineer. It contains basic data and theoretical discussions as well as almost complete texts on water supply, sewerage, waterpower, etc.

Miners' Handbook of Engineering Materials is designed for engineers and not for the layman because it assumes basic technical knowledge. It can be contrasted with another handbook in the same field: Brady's Materials Handbook which is designed for the purchasing agent or executive without technical background looking for short, simple descriptions of materials in dictionary style. An extreme example of the first mentioned type of handbook might be the ASME Handbook in four volumes, begun in 1953. This work is intended for use by practicing design and research engineers but the complexity of preparation for engineering now being what it is, the editors claim it can be used by advanced engineering students.

A quite different handbook from these already mentioned is one that should gladden the hearts of all reference librarians. Edited by William Spector, it is called the Handbook of Biological Data. It gathers and compiles basic established data in the biological and medical sciences. It is intended for the harried reference librarian; for the student; for the teacher; and for the expert looking for information outside his own area of specialization. There are facts here, too, which will settle many a dispute which ends up with a telephone call to the nearest reference library. It will provide, for example, information on the following: the life span of the Moorish Wall Gecko, or the American Alligator; the body temperature of the Northern Horned Lark; the respiration rate per minute of a hibernating long-eared bat; gestation period of the horse, or elephant, or Asian rhinoceros; tolerance to extreme heat and cold by the canary; or the clocked speed of the kangaroo.

The tables included represent the contributions of more than 4,000 scientists and the counsel of an additional 13,000. Much of the data which is condensed for the handbook will appear, and is appearing in monograph form, such as the

Standard Values in Nutrition and Metabolism and the Handbook of Toxicology, vol. 1.

The field of physics has generally depended upon other disciplines for handbook material covering condensed physical data, such as that found in the Handbook of Chemistry and Physics or Lange's Handbook of Chemistry. For systematic treatment of its logical areas it has usually depended upon German works such as the Handbuch der Physik or upon many of the excellent monographs and treatises available in the field. However, this year the American Institute of Physics published a handbook which should become an important working tool in research, application, and the teaching of physics. It is divided into the following areas: mathematical aids to computation; mechanics; acoustics; heat; electricity and magnetism; optics; atomic and molecular physics; nuclear physics; and has an excellent index. In 1955, Donald H. Menzel wrote another badly needed book in this area, Fundamental Formulas of Physics. Here are the basic formulas of mathematical physics, covering general physics as well as cross-field disciplines where physics touches upon chemistry, astronomy, meteorology, biology, and electronics. This is a collective work by experts, intended, as so often is the case, not only for the specialist in the field, but for other scientists working in related fields. Here would be the logical place to look for gravitational constants, for Maxwell's field equations, for the Lorentz transformation; and for the many physical expressions much in the air these days.

For the professional and the specialist in other fields who needs to turn to physics and electronics for information, the International Dictionary of Physics and Electronics defines laws, relationships, equations, basic principles and concepts, as well as the most widely used instruments and apparatus. Generally, it gives short, simple skeleton definitions but is quite broad in its coverage of terms. Most useful for just this purpose and no more.

Another class of reference materials in science which has grown to large proportions in the fifties is the "Annual Review." Such "Reviews" give a condensed account or survey of the work in a special field and note certain advances made during the year. In many cases they provide fine starting bibliographies for topics and subjects which are so recent or so special that they are difficult to track down in the usual channels. But here again, current developments are often so rapid and the quantity of the literature so great, that even the most competent researchers cannot keep up with it. These "Annual Reviews"

help also to keep up with borderline areas just outside one's own field. For the non-specialist librarian they help to point out general trends, outstanding developments, and will often serve to orient him in an unfamiliar field. This type of review appeared very early in the scientific literature, in 1795, but after 1890 they seemed to lose their importance as the large abstracting journals came into the picture. Now the reviews come into their own once again and throughout the last decade, one after another title has made its appearance. Three publishers have specialized in these "Annual Reviews": Academic Press in New York; Annual Reviews, Incorporated in Stanford, California; and the Pergamon Press in London and New York.

NEW SCIENTIFIC AND TECHNICAL REFERENCE WORKS

General

Columbia University. Science Libraries. Science Reference Notes. vol. 1, no. 1, Jan. 1954. Quarterly.

Periodical Abstracts and Guides to "Reports"

Bulletin Signalétique. Paris, 1956. (Formerly Bulletin Analytique, 1940-55.)

Akademiia Nauk SSSR. Institute Nauchnoi Informatissi. Referativnyi Zhurnal. (A series of Russian abstracting tools in astronomy and geodesy, biology, physics, geology and geography, chemistry, biological chemistry, mathematics and mechanics.)

Bibliography of Translations from Russian Scientific and Technical Literature. (Scientific Translations Center). No. 1- Oct. 1953- Washington Library of Congress Card Division. Monthly. $3.00 per year.

Special Libraries Association. Translation Monthly. Chicago, John Crerar Library, 1955.

Great Britain. Department of Scientific and Industrial Research. Translated Contents Lists of Russian Periodicals. London, 1949-.

U.S. Office of Technical Services. U.S. Government Research Reports. (Formerly Bibliography of Scientific and Industrial Reports, and Bibliography of Technical Reports.) 1946-.

Runge, Gretchen, ed. Correlation Index: Document Series and P.B. Reports. Special Libraries Association, 1953.

Technical Information Service. Index to P.B. Reports. Washington Technical Information Service, 732 Woodward Building, Washington 5, D. C. $27.50.

U.S. Armed Services Technical Information Agency. Title Announcement Bulletin. Washington, ASTIA, 1953. (For distribution to contractors only.)

Rand Corporation. Index of Publications. Annual, 1955-

Technisches Zentralblatt... Berlin, Akademiie-Verlag, 1951- . Monthly.

British Abstracts.(Discontinued in 1953) Succeeded by: Journal of Applied Chemistry. London, 1954, large abstract section.
Current Chemical Papers. London, 1954- .
Analytical Abstracts. London, 1954- .

Meteorological Abstracts and Bibliography. American Meteorological Society, 1950.

Geophysical Abstracts. U.S. Geological Survey, 1950- .

Synthetic Liquid Fuel Abstracts. U.S. Bureau of Mines, 1950- .

Crerar Metals Abstracts. Chicago, John Crerar Library, 1952- .

Geological Abstracts. American Geological Society, 1953-.

Sources of Abstracts

Besterman, T. Index Bibliographicus. vol. 1, Science and Technology. UNESCO, 1952.

Special Libraries Association. Bibliography of Engineering and Abstracting Services. (Bibliography no. 9) New York, Special Libraries Association, 1955.

Royal Society of London. List of Periodicals and Bulletins Containing Abstracts Published in Great Britain. London, 1950.

Union Catalogs of Periodicals

Australia. Commonwealth Scientific and Industrial Research Organization. Union Catalogue of the Scientific and Technical Periodicals in the Libraries of Australia. 2nd ed. Melbourne, 1951.

UNESCO. East Asia Science Cooperation Office. List of Scientific and Technical Journals Published in South East Asia. rev. ed. Manila, Philippine Islands, UNESCO, 1951. 2nd ed. 1953.

U.S. Library of Congress. Science Division. Scientific and Technical Serial Publications: Soviet Union, 1945-1953. Washington, 1954.

U.S. Library of Congress. Science Division. Scientific and Technical Serial Publications: United States, 1950-1953. Washington, 1954.

World Lists of Scientific Periodicals Published in the Years, 1900-1950. 3d ed. London and New York, Academic Press, 1952. $37.00.

British Union Catalogue of Periodicals... New York and London, Academic Press, 1955- . $32.20.

General Bibliography of Science

Hawkins, R.R. Scientific, Medical and Technical Books Published in the U.S.A. Washington, National Research Council. 1st supplement, 1945-48, 1950; 2nd supplement, 1949-52, 1953.

ASLIB. British Scientific and Technical Books, 1935-1952. London, 1956.

Guides to Special Areas of Scientific and Technical Literature

Jenkins, Frances B. Science Reference Sources. Champaign, Illini Union Bookstore, 1954.

Fleming, Thomas P. Guide to the Literature of Science. New York, Columbia University, 1952.

History of Science

Sarton, George. Guide to the History of Science. Waltham, Massachusetts, Chronica Botanica Company, 1952. $7.50.

Thornton, J. L. Scientific Books, Libraries and Collections. London, 1954.

Weeks, Mary E. Discovery of the Elements. 6th ed. Easton, Pennsylvania, Journal of Chemical Education, 1956.

Terek, Eugenie. Scientific Expeditions. Jamaica, New York, Queens Borough Public Library, 1952.

Nissen, Claus. Die Botanische Buchillustration, Ihre Geschichte und Bibliographie. Stuttgart, 1951-52. 2v.

Physics Guides

Whitford, Robert. Physics Literature. Washington, Scarecrow Press, 1954. $5.00.

Guides to Chemical Literature

American Chemical Society. Division of Chemical Literature. Searching the Chemical Literature. Advances in Chemistry, series no. 4. 1951.

Dyson, George. Short Guide to Chemical Literature. London, Longmans, 1951. $2.00.

Crane, E. J., et al. Guide to the Literature of Chemistry. 2nd ed. New York, Wiley, 1957. $9.50.

Geology Guides

Pearl, R. M. Guide to the Geologic Literature... New York, McGraw-Hill, 1951. $5.75.

Mason, Brian. The Literature of Geology. New York, Author c/o American Museum of Natural History, 1953.

Biology, Psychology and Medicine Guides

Smith, R. C. Guide to the Literature of the Zoological Sciences. 2nd ed. Minneapolis, Burgess Publishing Company, 1952. $2.50.

Doe, Janet. Handbook of Medical Library Practice. 2nd ed. Chicago, American Library Association, 1956. $10.00.

Daniel, Robert S., and Louttits, C. M. Professional Problems in Psychology. New York, Prentice-Hall, 1953. (Has two sections constituting a guide to the literature of psychology.) $5.95.

Harvard List of Books in Psychology. New ed. Harvard University, 1955. $1.50.

Menninger, Karl A. A Guide to Psychiatric Books. 2nd ed. New York, Grune and Stratton, 1956. $4.75.

Metallurgy

Milek, John T. Guide to Foreign Sources of Metallurgical Literature. Pittsburgh, Pennsylvania, Richard Rimbach Associates, 1951.

Special Bibliographies (Examples)

Bibliography of Solid Adsorbents, 1943 to 1953. Washington, U.S. National Bureau of Standards, 1956.

Murray, Margaret R. Bibliography of Research in Tissue Culture, 1884-1950; An Introduction to the Literature of the Living Cell Cultivated in Vitro. 1953. $24.

Nottingham, Wayne B. Bibliography on Physical Electronics. Cambridge, 1954. $10.00.

Arctic Institute of North America. Artic Bibliography. Washington, Government Printing Office, 1953-55. 7v. (in progress).

U. S. Bureau of Aeronautics. Department of Navy. Antarctic Bibliography. Washington, Government Printing Office, 1951.

Brown, Harrison. A Bibliography on Meteorites. Chicago, University of Chicago Press, 1953. (in progress). $12.50.

National Foundation for Infantile Paralysis, Inc. A Bibliography of Infantile Paralysis, 1789-1949. 2nd ed. Philadelphia, Pennsylvania, Lippincott, 1951. $20.00.

Shock, Nathan W. A Classified Bibliography of Gerontology and Geriatrics. Stanford, California, Stanford University Press, 1951. $15.00.

Irwin, Raymond. British Bird Books; An Index to British Ornithology, A.D. 1481 to A.D. 1948. London, Grafton, 1951. 63s.

Waksman, Selman A. Literature of Streptomycin, 1944-52. 2nd ed. New Brunswick, New Jersey, Rutgers University Press, 1952. $5.00.

Lederle Laboratories. The Aureomycin Bibliography and Index. New York, 1952.

Stephens, Sophie V. Annotated Bibliography in Radio Biology. Oak Ridge, Tennessee, U. S. Atomic Energy Commission, Technical Information Service, 1953.

United Nations. Secretariat. Department of Security Council Affairs. Atomic Energy Commission Group. An International Bibliography of Atomic Energy. New York, 1949-52. 2v. and supplement.

Boswell, Jane E. Bibliography of Current Materials Dealing with Atomic Power and Related Atomic Energy Subjects for Non-specialists and Lay Persons. 1955.

Haughton, John. Constitutional Diagrams of Alloys; A Bibliography. 2nd ed. London, Institute of Metals, 1956. 35s.

American Geophysical Union. Annotated Bibliography on Hydrology, 1941-50. Washington, U.S. Government Printing Office, 1951.

Lovell, E.C., and Hall, R.M. Index to Handicrafts. 3rd supplement. Boston, Faxon, 1950. $7.50.

Lincoln, Waldo. American Cookery Books, 1742-1860. Worcester, American Antiquarian Society, 1954. $8.00.

Riling, Raymond. Guns and Shooting; A Selected Bibliography. New York, Greenberg, 1951. $15.00.

Encyclopedias and Encyclopedic Works

Handbuch der Physik. Berlin. Springer, 1955- .

Encyclopedia of Chemical Technology. Edited by R. E. Kirk and Donald F. Othmer. 15v. New York, Interscience, 1947-56.

Thorpe's Dictionary of Applied Chemistry. London, New York, Longmans, Green, 1954. 12v. 4th ed.

Ullmann's Encyklopadie der Technischen Chemie. 3rd ed. Urban & Schwarzenberg, Munich & Berlin, 1951- .

Porter, M.W. The Barker Index of Crystals. Cambridge, 1951- . 90s.

Clark, G. L. The Encyclopedia of Chemistry. New York, Reinhold, 1957. $19.50.

Mueller, Eugene. Methoden der Organischen Chemie. 4th ed. Stuttgart, 1953- .

Sneed, M.C., et al. Comprehensive Inorganic Chemistry. 6v. New York, Van Nostrand, 1953- . $6.00 each.

Heilbron, I. Dictionary of Organic Compounds. 4v. New York, Oxford, 1953. $100.00.

Rodd, E.H. Chemistry of Carbon Compounds. 5v. New York, Van Nostrand, 1951. Individually priced.

Cremer, H. W. Chemical Engineering Practice. 13v. New York, Academic Press, 1956- .

Society of Dyers and Colourists. Colour Index. 2nd ed. 2v. Lowell, Massachusetts, 1956.

Die Wissenschaftliche und Angewandte Photographie. Wien, Springer, 1955- .

Lincoln, E.S. Lincoln's Industrial Commercial Electrical Reference. 2nd ed. New York, Electrical Modernization Bureau, Inc., 1952.

Stubbs, S. J. New Electrical Encyclopedia. 4v. London, Waverley, 1953.

Focal Encyclopedia of Photography. London and New York, Focal Press, 1956. $15.00.

Grigson, Geoffrey. Things; A Volume of Objects Devised by Man's Genius Which are the Measure of His Civilization. New York, Hawthorn, 1957. $12.50.

Handbooks

Hunter, Lloyd. Handbook of Semiconductor Electronics. New York, McGraw-Hill, 1956. $12.00.

Davis, Calvin. Handbook of Applied Hydraulics. 2nd ed. New York, McGraw-Hill, 1952. $16.00.

Miner, D.F. Handbook of Engineering Materials. New York, Wiley, 1955. $17.50.

Brady, G.S. Materials Handbook. 7th ed. New York, McGraw-Hill, 1951. $12.50.

American Society of Mechanical Engineers. ASME Handbook. New York, McGraw-Hill, 1953. 4v. $46.50.

Spector, William S. Handbook of Biological Data. Philadelphia, Saunders, 1956. $7.50.

American Institute of Physics Handbook. New York, McGraw-Hill, 1957. $15.00.

Menzel, Donald H. Fundamental Formulas of Physics. New York, Prentice-Hall, 1955. $16. Text ed. $12.00.

International Dictionary of Physics and Electronics. New York, Van Nostrand, 1956. $22.50.

Annual Reviews

Annual Review of Entomology. 1956- . $7.00.

Annual Review of Hypnosis Literature. 1950-51- .

Annual Review of Nuclear Science. 1952- . $7.00.

Annual Review of Plant Physiology, 1950- . $7.00.

Annual Review of Psychology, 1950- . $7.00.

Annual Review of Psychoanalysis, 1950- .

Antibiotics Annual. $9.00.

Progress in Cosmic Physics, 1952- .

Progress in Low Temperature Physics, 1955- . $10.00.

Progress in Photography, 1949-50- . $7.00.

Progress in Semiconductors, 1956- .

Advances in Chemical Engineering, 1956- . $9.00.

Advances in Agronomy, 1950- . $12.00.

Advances in Cancer Research, 1953- . $11.00.

Advances in Virus R search, 1953- . $9.00.

International Review of Cytology, 1952- . $16.00.

Progress in Biophysics and Biophysical Chemistry, 1950- . $17.50.

Soviet Annual Review of Biochemistry. 1951- .

Progress in Coal Science. 1950- . $6.40.

Review of Coal Tar Technology. 1950- .

Advances in Geophysics. 1952- . $10.00

Progress in the Chemistry of Fats and Other Lipids. 1953- . $14.00.

Annual Review of Nuclear Science. 1953- . $7.00.

Annual Review of Physical Chemistry. 1950- . $7.00.

Progress in Nuclear Energy. 1956- . $12.60.

Progress in Nuclear Physics. 1951- .

THE DEVELOPMENT OF A STAFF FOR REFERENCE WORK

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"No library can render effective service without adequate and competent personnel. The library's unique function of serving as the one unbiased, non-partisan bureau of information for all the people calls for personnel of the highest competence and integrity. The selection of qualified staff members as well as the organization and conditions under which they work, are basic considerations in an institution dedicated to public service."[1] In these words the new Public Library Standards affirm the significance of the human element in library service. While some similar statements of the importance of the staff of a library may be found in the library literature, until recent years little serious attention has been given to the problems of staff training and development. Librarians, in the main, have tended to devote the greater portion of their time and energies to the selection and development of their library collections, with little time for the post professional or in-service training of their library staffs.

In the Public Library Inquiry, Alice I. Bryan and Robert D. Leigh and their corps of investigators found that the personnel in public libraries was inadequately organized and supervised, with evidences of a lack of modern personnel procedures for staff development. The survey revealed the failure of the majority of public librarians to organize their jobs, their salaries, their work schedules and their staff selections on a factual, equitable, and scientific basis. Few libraries had any formal programs for the development of their professional staff; indeed, of the fifty libraries in the survey only ten gave any in-service training for promotion, and only eleven used any techniques to help their librarians develop new talents or skills.[2] At the conclusion of this study, Miss Bryan and Mr. Leigh wrote: "With the exception of induction training, less than half of the metropolitan libraries, a few of the large libraries, and a very few of the smaller libraries have instituted personnel training programs for their professional staffs. ... Neither formal in-service training nor li-

brary-financed attendance in refresher courses in library schools seem as yet to have become characteristic features of the public library career."[3] But public libraries are not the only type to neglect this phase of librarianship. A survey conducted in 1950, sought information from 507 libraries of all types in Canada and in every state of the United States. The questionnaire revealed that only 29 per cent of these libraries had any form of training program for the development of their professional staff.[4]

While all professional personnel on the library staff need the opportunity for continuing development and stimulus, no one who has listened to the three talks today could deny that the need for continued education on the part of the reference librarian is most essential. Isadore G. Mudge's emphasis on the reference librarian and his knowledge, as expressed in the introduction to Guide to Reference Books is well-remembered: "The possession of the right books and the knowledge of how to use them are the two things essential to the success of a reference department, and the latter is no less important than the former. The ignorant assistant can render comparatively useless the finest collection of reference books while the skilled assistant who knows how to get from each book all the varied kinds of information that it is planned to give can show astonishing results even when limited to only a few basic books."[5] "Nowhere is personnel more important than in reference work," writes Mary N. Barton in her manual for the General Reference Department of the Enoch Pratt Public Library, "since the core of this service is staff aid to readers. The effectiveness of the service (and of the Library) is largely dependent upon all the staff members who serve at the reference desks."[6]

Knowledge of reference books and the ability to use them efficiently are, of course, basic requirements for all good reference librarians. The development of this book knowledge and this skill in reference searching is indeed a formidable task and one which is never really completed for there are always more books waiting to be discovered and one is constantly finding hidden resources in the familiar works. However difficult it is to know the books with which one is working, it is even more difficult to be aware of the services and resources of other agencies and groups of the college and community, and to learn of the availability of materials in other libraries. This latter information, that is, the availability of materials in other libraries, is an important factor in successful interlibrary cooperation. In truth, any cooperative

acquisition program adopted for any group of libraries must be predicated on the principle that all reference librarians in these libraries are aware of the resources of all the participating agencies. Without this knowledge, valuable materials close at hand may be overlooked, and cooperation may be in reality merely a delimitation of resources.

Technical knowledge, that is, knowledge of library resources and the techniques needed to use such materials effectively, is of the utmost importance to the reference librarian. However, this writer believes there are two other skills which are also essential to successful performance as a member of a reference department. The first might be called human skill, the ability to work effectively with patrons, the faculty of establishing good rapport with all those with whom one comes in contact. It implies not only a proper attitude toward the public, but an ability to work cooperatively with other members of the reference department and with other library staff members. Of what value is a vast knowledge of reference books and techniques if, by a supercilious manner, disinterested attitude, or grouchy disposition, the reference librarian scares away any would-be patrons? Of course, the librarian who is, as one professor commented, "a sweet young girl but she doesn't know anything," is equally as much a deterrent to effective reference service.

The second is conceptual skill which involves the ability to see the library as a whole and the place of the reference department within that whole. It includes recognizing how the various library activities depend upon one another, and how a change in policies or procedures in one department may affect work in all other departments. It extends to visualizing the relationship of the library to the institution of which it is a part, to the community, and to the library world at large. Reference librarians are needed who can envision new and better ways of performing reference services, new methods of bibliographic control, and new services which should be established for the library patronage.

Thus, reference librarians need three skills to be effective in their jobs: technical knowledge, that is, knowledge of library resources and how to use these resources effectively, and knowledge of extra-library resources which are available; human skills which include good public relations and good staff relations; and conceptual skills or the ability to think creatively. The degree to which a reference staff possesses this knowledge and these skills indicates the degree of success enjoyed by the department and the library.

When selecting a reference librarian for a staff, the educational training he brings to his professional career should be studied. The young reference librarian comes to his first position with a background of a four-year academic education and one year of professional training in an accredited library school. During his college days he may have majored in any one of a number of subject fields, generally in the liberal arts. For work in a small or medium-sized library a strong liberal arts background seems essential, for the reference librarian must be a generalist, answering questions in all areas of knowledge. As the size of the library and the size of the staff increases, the need for specialists grows, and specialized training in business administration, chemistry, medicine, art and music, education, etc., may be required. But even in these instances, it appears preferable that the specialization be in addition to a well-rounded liberal education.

The need for facility in the use of languages other than English depends a great deal upon the location of the library and upon its clientele. In cities having a large foreign population, a reading and perhaps a speaking knowledge of one or more languages may be a prerequisite for employment as a reference librarian. Some language facility is of value in reference work regardless of the size or type of library, and the study of language should be encouraged for all those going into public or college and university library work.

There is not much which can be said that has not already been said or written about the year of library training. It is during this year that the neophyte is expected to become familiar with the basic reference works, to master the techniques of reference searching, to understand the administrative problems of libraries, to adopt the proper ethical standards of the profession, to understand the philosophy of librarianship and of reference service. He should have grasped in this year the fundamentals of cataloging and classification for this knowledge is basic to competent use of the card catalog, an essential reference tool. All librarians would wish that more could be taught in library schools, but everyone realizes the fact which Clara W. Herbert stated in her classic volume on public library personnel administration and which has been reiterated by so many librarians since--that one year at a library school obviously can be only inadequate training and that this must be supplemented by "practical application of theory under actual working conditions."[7] She continues by insisting that "the progressive library must develop a systematic program of in-service training if the staff is to maintain the highest efficiency."[8]

Is it practical to undertake a program for the continued development of reference librarians beyond their formal education? Can libraries afford to do this? If so, how do they proceed in developing the reference staff?

To answer these questions it is necessary to look at the group which has done the most outstanding work in recent years in the training and development of their professional employees and the group which, at the same time, has been obligated by the very nature of their enterprises, to show a financial profit in their organizations. Since World War II, business and industry has become increasingly aware that manpower is its most valuable resource and that it has a respnsibility both to the individual and to the company to provide opportunities for the development of the talents and abilities of its employees. Marvin Bower, in his book The Development of Executive Leadership, says that "the success of any company compared with others in the industry depends larely upon its ability to bring in and develop the right kind of men for management responsibility."[9]

Through the years there has come the realization that unguided experience is costly, that men do not automatically learn better methods from experience, that many professional skills are not acquired unconsciously in any job situation. These are important findings for librarians, because they have been resting too much on some of the old adages such as, "experience is the best teacher," "people learn by doing," etc., which are in reality only half-truths. To repeat, industry has found that unguided experience is costly, that men do not automatically learn better methods from experience, that many professional skills are not acquired unconsciously in any job situation.

Therefore, more and more, industry has been systematically attempting to guide employees in their development of the knowledge, skills, and attitudes which will make them more efficient and more effective on the job, and will prepare them for promotion to better positions. By 1956, 75 per cent of the companies surveyed by the Personnel Policies Forum of the Bureau of National Affairs reported that they were carrying on training of their professional, their managerial, group for the purpose of improving their performance on their present jobs, developing personnel for advancement, developing selected individuals for key executive positions, and improving the effectiveness of all members of the management team. Are not these purposes which librarians share for the training of reference librarians?

One cannot study the research experiments of industry and business in this area without becoming convinced that this group has found the answer to the needs for professional staff with outstanding abilities and talents, in their formal, planned program for staff growth and development. The principles of management development which have been formulated are fundamental to any educational program, and the procedures which industry has developed are logical steps in analyzing training needs of employees in organizations of any type or size. Many of the training techniques which have been devised can be adopted or adapted for use in libraries whether they be college, university, public or school, and whether they be large or small. Therefore, how can these principles, procedures and techniques be applied to a development program for reference librarians?

Before there can be any plan for the training or development of the reference staff, who is to be trained and what kind of training is needed must be determined. Therefore, the first step is the construction of an organization chart, a simple picture of the place of the reference department within the library structure and the relationship of this department to other departments and divisions of the library system. This will not take long, only a few minutes in most instances, but it will give a concreteness to the organization and will enable the librarian to plan more easily for future expansion of his staff and services.

From a study of the total organization the librarian must then turn to an investigation of each position within the reference department. The position analysis is a determination of the duties and responsibilities which comprise each position and of the skills, knowledge, and abilities required of the individual librarian for successful performance. First, a statement of the duties of each position is written down by the person who is in the job being analyzed, and this is reviewed by the person in charge of the department. The qualifications necessary for the person in each position which are then listed should not necessarily coincide with those of the person now holding the position, but should be the skills, knowledge, and abilities which would best fit a person to perform effectively the duties of the position. A detailed explanation of the steps to follow in compiling the list of duties of each library position is given in the Position Classification and Salary Administration in Libraries prepared by the Board on Personnel Administration of the American Library Association.

The position analysis is an excellent means of restudying

the alignment of duties, and a good check on the distribution of professional and clerical duties. In these days when the acute shortage of professional librarians is felt, staff directors are all aware of the very great necessity for delegating to the clerical staff all those duties which they can perform, thus leaving the librarians free for professional work of the highest type. The description of duties, the first part of the position analysis, is a valuable means of ensuring this proper division of labor.

A concomitant of the position analysis is the appraisal or evaluation of each reference librarian to determine his overall job performance, his potential, and the training he needs to improve his effectiveness in his present position and to prepare him for promotion to a higher position. There are many different forms which can be used to evaluate the library staff; some are extremely complicated while others are simple and comparatively easy to follow. If in the position analysis the qualifications have been organized according to the three skills needed by reference librarians and the qualifications essential to each under these three categories have been delineated, this list can be used as a standard against which to evaluate the staff's background and abilities. For example, under "Technical Knowledge," the following might have been listed: "college education with special knowledge of literature," "wide knowledge of reference books and reference techniques," "reading knowledge of Spanish." In appraising each staff member a simple word or two may state how he meets these three needs. He may have a good basic background in literature but be weak in current American Literature. His knowledge of reference books may be fair, his Spanish adequate. Such a brief appraisal appears to be sufficient for most reference department needs, but more detailed evaluation schemes are available and description of these may be found in any personnel text.

Remember that an appraisal is merely the opinion or judgment of one person and is only as unbiased as the person who makes it. To insure an accurate evaluation, one must recognize his personal bias and make allowances for this. Observation of the staff members from time to time will reveal instances of good and poor performance. These should be noted all during the working period so that the appraisal, when made, will not tend to be based on some single failure of accomplishment. Perhaps the greatest problem in rating is that of finding sufficient time to form considered judgments. But time must be set aside for this essential act for it is this eval-

uation which reveals the area of weakness of each staff member and his specific needs for training or development.

The appraisals may indicate the need of the reference librarians to become more familiar with general reference tools. One librarian may need to strengthen his language skill or his knowledge of a particular subject field. Another is aware of reference titles but is weak on his approach to a reference question and thus needs some further training on techniques. Perhaps it is the ability to delegate responsibility that is weakest, the ability to work with others, or the capacity to arouse in others the desire to give better service to patrons. Whatever the weaknesses, these are the areas for the attention of the one planning the professional training program.

Following the delineation of the training needs, the librarian should discuss the findings with each individual, showing him his good points and the areas in which, in his opinion, the staff member could improve. Emphasis should be placed on the fact that the individual's own desire to improve is fundamental to the success of any professional development program. While discussions with staff members about their weaknesses are difficult, they are extremely important. However, there is one word of caution for this procedure. There may be instances when it would appear that such conferences might prove more harmful than good. This might be caused by a personality conflict or perhaps by the need for more guidance and counseling knowledge and experience on the part of the head of the reference department. If, after a careful study of the situation, the librarian feels certain that an interview with a staff member would disrupt his effectiveness and that of the department, this step should be omitted and the development program for this individual should be prepared without personal counseling. Few instances of this should occur in any reference department.

After staff needs have been identified, the librarian must select the best method of training for the individual need of each reference librarian. This selection is important in bringing about the desired results in a minimum of time and with a minimum of effort, and therefore, librarians must be familiar with the various methods of training and understand their particular usefulness.

Since it is generally recognized that the most effective training is that built into daily, on-the-job experience, if follows that the most effective training methods are the understudy and the guided experience techniques, both individualized, on-the-job approaches to personnel development. The under-

study method is focused upon the person's work habits. By coaching the person as he works, the immediate supervisor "guides practice on the job, utilizing the work itself and the problems it presents to build effective skills and to improve technical understanding."

In addition to acquiring knowledge each librarian must be taught to think, to develop a strong urge to accomplish, to have ambition to seek the satisfaction of personal progress, to be emotionally mature, to be self-confident, to be tolerant, and to develop mental curiosity. Much of this is taught by example and by direct coaching of the supervisor. This means that there can be no day-by-day procedure. Instead there must be a sharing of the reference librarian's knowledge with his assistant. The success of the understudy method, thus, depends to a great degree on the ability of the reference librarian, and on his willingness to explain the principles involved in his daily practices, to seek and encourage the ideas of his assistant, and to give him such special guidance as he needs to develop fully.

Everyone should have an understudy. The head of the department should guide the professional assistant, the professional assistant should help the clerical assistant, the clerical assistant should encourage the student worker. No person should be employed in any position without being given the opportunity to develop his talents and abilities and this opportunity may be given most advantageously through the understudy method.

One plea should be made to library administrators--to create an atmosphere of reasonable security so that reference librarians do not feel the need to hoard their special knowledge lest their usefulness to the library system be ended. Surely the more knowledge is shared the more everyone learns.

Somewhat similar to the understudy method in technique is the guided experience. As its name implies, guided experience consists of planned on-the-job projects designed to help the assistant overcome his deficiencies under the guidance of his supervisor. It may take the form of the assignment of a special problem to be analyzed, the study of available reference material in a certain area, observation of activities in another department or another library, or the responsibility of carrying out special tasks. Each such assignment should be carefully planned to help the librarian develop that knowledge or ability which he needs. One librarian may need a position on a committee in order to help her develop skill in working with others. Another may need to learn to take one task and

carry it through to completion. For her an assignment to study the need for city directories and to make out order cards for those needed, or the compilation of a reading list on a specific subject might be worthwhile. To be of value these projects should be definite and short-ranged, with a reasonable goal in sight.

In some instances a reference librarian may need the knowledge or the understanding which can be gained through a program of job rotation. In most small and medium-sized libraries a complete switching of positions is not feasible, but modified plans have been highly successful. At the University of Florida every professional staff member in the Main Library and in the branches, files in the public catalog one morning in each six week period, and works in the Bibliography Room for six hours during such a six week period. This gives each person an opportunity to learn the intricacies of the card catalog and should enable him to use this tool more effectively and efficiently. By manning the public service desk in the Bibliography Room the person becomes aware of the public's use of the card catalog and of the various bibliographical aids. Some libraries have a plan whereby catalogers and reference librarians work half time in each department. Others assign all staff members to a service desk one night each week.

Sometimes the reference librarian does not need to gain knowledge of other areas of librarianship as much as he needs to know what other libraries are doing. This is especially true of librarians who have come directly from library school to a reference position and who have worked in that position for three or four or more years. It is at this time that the stimulation of a six month or year's exchange is most beneficial. Through this experience, the two exchange librarians may broaden their knowledge and their judgments as they observe new methods of performing their professional duties, and encounter different ideas on familiar service problems. The other members of each library staff will benefit from the experience of having someone in their midst asking questions about practices and procedures, seeking reasons for the presence or absence of reference materials, and inquiring as to policy statements on service problems. With a careful selection of participating librarians and libraries, this experience may be a potent factor in growth and development.

For some staff members increasing their knowledge of a subject area or a language is their foremost training need. Those libraries located near a university or college are at a distinct advantage for, with a little encouragement, many ref-

erence librarians will enroll for a course in the field in which they are ill-prepared for the demands of their positions. When this opportunity is not available, the ambitious librarian should be assisted as much as is possible in his pursuit of formal training.

Some few libraries at present offer inducements or assistance to staff members who need or want to continue their formal education, through leaves of absence, sabbaticals, and scholarship aid. Some college libraries provide time for class attendance or a waiver of tuition fees, but more liberal allowances, both in time and money, should be provided by both public and college libraries.

The training methods described in the foregoing paragraphs have been some of the individual methods for the growth and development of particular skills of an individual reference librarian. There are occasions, however, when the training needs of several staff members may be very similar. When this is true a group method may be used to advantage.

Well-planned, regularly scheduled staff meetings may be very effective in the development of human and conceptual skills, for here librarians exchange points of view, observe, listen, assimilate ideas and interact with others. As information is presented, as new projects are discussed, and as decisions are reached, each participant may grow in knowledge and ability. Staff meetings promote mutual understanding and give members practice in working together harmoniously.

The key to the success of a staff meeting lies in the careful planning which must be done. Spending at least twice as much time in preparation as in the meeting itself, the department head should know what he should tell the staff members, what he should encourage them to tell to others, and what he wants to accomplish in that session in the way of staff development. When the librarian plans with care, pays attention to principles of good leadership, and creates a generally favorable climate, the stafff meetings should be an effective method of developing reference librarians professionally.

The conference differs from the staff meeting in that it is called to deal with one particular problem. It may be that the reference librarians in public libraries in one area feel the need for a meeting with the high school librarians to discuss how much help should be given to students on their assignments. Perhaps a series of meetings on book reviewing or on reference service to business groups might prove beneficial.

Participation in conferences improves technical knowledge as the various members present information not familiar

to the others. It reduces any tendency toward intellectual stagnation as each conference member faces the varied topics before the group. By considering these problems which are of a higher order than are those usually encountered in everyday work the participants broaden their interests and attitudes, and develop the ability to analyze and explore problems systematically, to perceive new solutions, and to cooperate in the exchange of ideas and in carrying out the results of the group thinking.

To be successful, the conference, as the staff meeting, needs good leadership, adequate preparation on the part of the leader and the participants, careful selection of members, and a generally favorable climate in which the group thinks, discusses and makes decisions. Without careful attention to these four factors, the conferences may be a detriment to the development program and a great waste of time.

Additional methods which may be used effectively to help reference librarians develop are: attendance at professional meetings, participation in institutes, pre-conference meetings and workshops; professional reading and writing, and membership in professional organizations.

Considerable time has been spent here on the techniques which can be used effectively in helping reference assistants become reference librarians who possess knowledge of bibliographies and bibliographical methods, knowledge of books knowledge of good techniques of reference service, ability to work with patrons and staff, ability to organize and carry out reference projects, and the ability to see the service function of the library as a whole and to conceive new and better ways of effectively serving the library's community. But techniques do not in themselves constitute a professional development program, for basically a librarian's development depends upon the individual and his superior whose actions reflect the attitude of the library administration. Fundamentally, the chief librarian and the department heads create the atmosphere of service, the attitude toward the public and the spirit which fosters the desire for continued development on the part of each member of the staff. Only a program which is inspired by the chief librarian and the head of the department and nourished by their daily example can hope to yield effective results. And the measure of these results will be the degree to which that example penetrates into the thought and practice of every individual in the library organization.

The experience of the writer seems to prove that the success of any development program for reference librarians will

depend upon eight factors. First, there must be professional interest on the part of every staff member, a desire to become a more effective member of the department. Each reference librarian must wish to develop, for where a staff member is not interested there can be little learning.

The purpose of each training plan must be clearly understood by the participants and the goals must be realistic and within the reach of the individual or individuals in the program. Along the way toward the final goal there must be standards against which the learner can gauge his progress. This will give him the satisfaction he needs to continue toward the final goal.

The training program must be personal, designed for each individual and his particular needs. Some librarians need one thing and some another; each must get what he requires by a curriculum as well as a method selected to meet his demands. This necessitates that any program for the development of reference librarians must be preceded by a position analysis and an appraisal of the performance of each librarian as measured against the requirements of his position. By this procedure individual training needs are identified and training goals set up for each person. Training devices which appear to enable the trainee to reach his training goals are then selected and the program is implemented.

Preparation for training is essential to the success of any program. Preparation includes not only careful planning of the curriculum, but also creating an atmosphere in which everyone finds it easy to develop himself and all feel a reasonable degree of security and confidence in relation to others in the group.

Finding time for careful preparation of every phase of the training program is often the "Waterloo" of the development program, for, in an active department, the demands of patrons and pressures of schedules and deadlines must take precedence over staff matters. The answer to this problem is not the employment of a personnel officer to assume training responsibilities, but the provision of enough staff to allow the head of the department to prepare the development program for her staff. Only the department head knows the work of each individual, the training needs of each, and the best methods of achieving the desired development of each staff member within the working schedule of the department.

The participation of each staff member is important to the success of the training program. As each person takes an active part in planning the program, setting the goals, selecting the training methods, he will be in sympathy with the endeavor

and more effective learning will take place.

Not only must there be participation by each reference librarian but the training program must be promoted wholeheartedly by all members of the administrative staff. Without full and continuous support during all phases of the training, the proper climate for the favorable growth and development of each individual will be lacking and the entire program will be ineffective.

To measure the successes and failures of the professional development program and the various techniques used, there must be periodic appraisals of the performance and potential of the reference staff.

Finally, it must be emphasized that "education is not something which is given to us nor is it something we get once and have all our lives. It is a continuous process."[10] The education of a reference librarian can never be considered complete, and it is the joint responsibility of the library and the individual to foster the continual growth of the talent, abilities, and knowledge of the reference librarian.

References

1. American Library Association. Public Library Service; A Guide to Evaluation, with Minimum Standards. Chicago, The Association, 1956, p. 38.

2. Bryan, Alice I.: The Public Librarian. New York, Columbia University Press, 1952, pp. 242-247.

3. Ibid., pp. 256-257.

4. Ladenson, Alex: Our Libraries Have In-Service Training. Library Journal, 75:1590-1592, Oct. 1, 1950.

5. Mudge, Isadore G.: Guide to Reference Books. 6th ed. Chicago, American Library Association, 1936, p. 2.

6. Barton, Mary N.: General Reference Department Manual. Baltimore, Enoch Pratt Free Public Library, 1950, p. 22.

7. Herbert, Clara W.: Personnel Administration in Public Libraries. Chicago, American Library Association, 1939, p. 89.

8. Ibid.

9. Bower, Marvin: The Development of Executive Leadership. Cambridge, Harvard University Press, 1949, p. 75.

10. Bowerman, C.F.: The Education of Librarians: Formal and Informal. Library Journal, 60:227, Mar. 15, 1935.

PUBLICIZING INFORMATION AND REFERENCE SERVICES

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In the first chapter of Public Library Service, A Guide to Evaluation, with Minimum Standards, the services provided by the modern library are grouped into six divisions. Under the sixth and last division heading are these provisions: "Stimulation of use and interpretation of materials through publicity, display, reading lists, story hours, book talks, book and film discussion, and other appropriate means either in the library or in community organizations."[1]

The idea of publicizing the library's policies and services, which includes all kinds of reference and informational services, is not new to anyone. All librarians attempt to tell the story of their library and its services in one way or another. But for some reason, or perhaps a great many reasons, they have failed to reach the general public. Too few people know what a library has to offer in the way of information and reference services, both to the individual and to the group.

The situation may have improved slightly since a survey about library use was made a few years ago, but it still has not improved enough. At that time, a large group of non-users were interviewed and asked why they did not make use of the public library. A small percentage indicated that they had so many interests or responsibilities that they did not have time to visit a library. Another group said they had patronized a library at some time or another but that inadequate equipment and book stock had caused them to become non-users. But 52 per cent of those interviewed said they know little or nothing about the library; that they never thought of seeking an answer at the library when they were faced with a specific problem, and finally, that the library ought to make known its location, holdings, services, and programs if it expected people to make use of them. In some instances, when groups and individuals were questioned about whom they would consult for information about a variety of subjects, the library appeared last on a list, if it appeared at all.

It seems unfortunate that libraries of all kinds have never

had the benefit of a good national publicity program. The cartoonists still picture librarians as men and women living in ivory towers hung with "quiet" signs and shushing small boys; when the motion picture world decides to turn its cameras on librarians the best they can do is portray a librarian that behaves in a hysterical, neurotic manner, and even Sergeant Bilko, when he introduces an Army librarian by way of this television series makes her appear not only dowdy but dumb. The teaching and nursing professions and even Smokey, the bear, have benefitted enormously by the fine work done by the Advertising Council, Inc. Through nation-wide, public service programs prepared by advertising specialists the citizenry has been urged to support their schools and hospitals and conservation programs. But no one has sold them on a campaign to use and support their libraries. Certainly, the Advertising Council, Inc. cannot be blamed for this oversight -- librarians can only blame themselves.

How can this situation be improved? How can the negative attitude of the public be changed? How can the publics be made to think spontaneously of the library as a community center; as a clearinghouse for information of all kinds, as a place where they can obtain information and help when they need it? Certainly, librarians can not sit around and wait for someone else to do it--they have to do it themselves.

Before the various methods of publicizing the services of libraries even can be considered it must be realized that publicity is only one of the tools used in the promotion of public relations. Without good public relations, good publicity is impossible.

Public relations is not something to be talked about one day and forgotten about the next day. Public relations is something to be lived with year in and year out. It is a long-term function that evaluates public attitudes and needs; that forms policies and procedures identified with these attitudes and needs; that explains problems and policies to both staff and publics, and develops programs and services that will earn public support and understanding.

Library public relations is essentially concerned with the library and the community it serves but it is also concerned with the interrelationships of the library's trustees, administration, staff, and the public. It deals with policies, resources, and services that affect any of them in any way. Without good internal relations, it is impossible to have good external relations.

Good communication is the first and most important factor

in creating good internal relations in a library, or in any organization, for that matter. The staff must be fully informed about library plans, problems, services, and holdings. Good communication makes all staff members feel a part of the whole and minimizes the possibility of competition between individual staff members or between departments. This, in turn, makes for satisfaction and enthusiasm for the job and a pride in work--in other words, good internal relations.

Publicity which is an integral part of this public relations definition is not a purpose but a tool that can be used to tell the story of the library or the reference and information services to the public. Publicity must be honest, accurate, and present a true picture of the library at all times. Properly used, it can result in increased public understanding, confidence, and good will.

The publicity family is a large one and includes advertising, magazines, films, radio, television, photographs, special programs, public speeches, exhibits, books, reports, posters, publications, special events, and meetings. Last, but certainly not least, is word-of-mouth publicity--that spreads like wildfire and may even make or break a library. A satisfied patron may tell a dozen people about the superb service she received at the library but a disgruntled person can negate all the good will by being even more vocal--he may even have a vital say-so in whether the library gets a new building, a reference book collection, or a raise in salaries for its staff.

To begin a program to publicize reference and information services, a list of group agencies in the community should be made. This list should include welfare, government, social, economic, educational, political, and religious organizations of all kinds and sizes. A file of "specialists" in the community--people who know a great deal about any subject from atomic power to xylophones--should be compiled also. An alphabetical file for easy reference use should list the name of the group or organization, purpose, activities, number of members, meeting time, publication and publication deadline, agencies with which the group cooperates, outstanding leaders, and any other pertinent information. The specialist file could be arranged alphabetically by subject and by the name of the individual.

These files should be invaluable, not only for publicizing the services, but also for a record of community interests and activities. If staff time does not permit the compilation of such files, the aid of the "Friends of the Library" or an interested, competent volunteer may be solicited. Perhaps, in the increasing efforts to extend cooperation, some of the examples set by

hospitals, welfare agencies, and schools to make use of people with time and talent could be followed.

Library service to groups is one way of reaching individuals economically and effectively. Copies of folders, reports, announcements, and special programs should be sent to all groups. If they have a publication they should be asked to include announcements about the library in this medium. In return the librarian can invite groups and organizations to send notices of their own meetings; invite the schools to supply notices of public interest that are usually sent home to parents and the radio and television stations to keep you informed of interesting cultural and educational programs. The librarian may find it advantageous to invite groups to visit his library on some specific evening. Then he can explain the reference and information services and make clear what the library has to offer to both individuals and groups. It has been said, at many times and in many ways, that the lack of information about a library's service and position in the community has often resulted in poor support and negligible attention. Working and cooperating with all groups is one of the best ways to put an end to such an unhappy situation.

After group work, the librarian should turn his attention to the newspapers, one of the most important publicity media at the library's disposal. Most American adults read at least one newspaper a day. Surveys have shown more men read the sport, editorial, and financial pages while more women read the women's pages and the columns. But the important thing is that both men and women read some part of some paper every day.

Newspaper editors welcome good materials at all times. Space is limited in any newspaper and it is the job of the editor to select and print only those items that have real news value. He is under no obligation to print articles without real news or feature value even if it has been submitted by a deserving private or public institution. No matter what the size of his newspaper--big city daily or small county weekly--an editor is interested in news that will appeal to his readers. These readers want to know what is going on and how it affects them, their family, their business, and any other interests they may have.

Anyone can learn to write a good news release with the help of books that are to be found in every library. It is not necessary to have a major in journalism to do a good, workmanlike job. But it is necessary also to study the local newspapers. If the editor spells librarian with a small "l", the releases from the librarian should do the same, even though he

personally thinks it is important enough to be capitalized. The managing editor's style should not be imitated for he is interested only in concise, accurate facts, not in style. He wants all of the facts and the name of the person to contact in case he desires additional information.

A good yardstick to use for a library news story is: Is it of interest to people? Has it just happened or happened nearby? Is it unusual? Does it have human interest? Does it concern important names? Does it affect the reader directly? One or more answers to these questions are in many of these topics: promotions, appointment of new staff members, retirement, new collections, the installation or opening of an exhibit, report of a board meeting, an anniversary, film showing, special program, visitors, campaign for funds, an annual report, open house, new building, gifts, cooperative programs with other community agencies, attendance and participation in state and national conventions and meetings.

In addition to news releases, a library can help develop feature materials or provide information that a staff news man or woman can work into a feature story. The nice thing about a feature story is that it makes good reading at any time, the only important test being--is it interesting? In presenting feature material the librarian can ask a question, such as "Looking for something? Why not try the Smithfield Public Library?" Or he can make an assertion: "The Smithfield Public Library saves local businessmen thousands of dollars" or use an arresting factual statement: "Thanksgiving isn't what it used to be." He can also use a quotation or paraphrase a quotation or familiar statement, present a contrast or relate an anecdote. Keeping a calendar of materials well in advance of the actual date of an historical event or a holiday will save time and effort and often result in good publicity. After assembling all the materials and facts, then write a note to the editor informing him of the story. He will either do the work himself or assign a staff member to make use of the story materials. This not only gets good publicity for the library but most important of all, it establishes the best kind of public relations with the newspaper editor and writers.

One of the most important things for the librarian to know, when working with a newspaper editor, is the schedule of deadlines and how far in advance he likes to receive material. It is the better part of discretion not to telephone or call on an editor without an appointment, for he may be right at a deadline himself, and this is no way to make a friend of any editor. The best procedure is to write a letter and ask him for the necessary

information or to make an appointment to speak with him personally when he is available. At the same time, the librarian can offer him the services of the reference and information departments. It is quite possible he has never even thought of using them.

If there is more than one newspaper in the town or community one should not be favored over the others. A news release with the same information should go to all papers. This is news and all papers have a right to it. It sometimes happens that one paper will use a release but another will not, however, this is no reason why the latter paper should ever be overlooked. Nothing irritates an editor more than the notion that news is being supplied to his competitor and withheld from him, unless it is telephoning him to ask if he has received the release and when it will appear in print. No one ever bats one hundred per cent with news releases and this is particularly true if only an occasional release is sent out. Like all other publicity, library publicity has to be constant to be effective.

After newspapers, perhaps, the most important avenue of communication is radio and television. An unskilled person who tries to use these media of communication can waste an enormous amount of time and money and garner few positive results. Unless, there is a talented person on the staff for radio or television broadcasting, it is preferable to turn to a professional in using these publicity channels. The librarian can make friends with the local broadcasters; supply them with "spot" announcements that are pertinent and well-couched; keep the stations informed about services and events in the library, and offer his help and services to them, personally. Good, ear-catching and arresting "spots" about services offered by all libraries make many more people aware of what libraries have to offer but there should be a constant flow of such material for effective results. The American Library Association issues a series of "spots" each month that can be tailored and fitted to each library's needs while the Public Relations Planner (Box 171, Tuckahoe 7, New York) includes ten spot announcements with their monthly service. They also have a series of three television slides, another series of three dramatized TV film spots, and a motion picture trailer in color and with sound for use in theaters, available at low cost.

Another potent force involved in "selling" is the use of display. Of course, libraries are not selling merchandise but they are selling service and ideas--ideas that can be used by people in business, in their family life, in their homes, in their schools, and in their community and national life. These ideas

may come from books, magazines, newspapers, films, slides, pictures, music, lectures, and many different kinds of programs and displays. Information about all of these things that the library has to offer can be conveyed by means of displays and posters both in the library and in outside areas.

Good displays and posters are the result of careful planning and often, the use of materials and methods developed by the professional display man. Every display must have a dominant theme and it must focus the attention of the viewer on the subject and make a distinct impression. Various agencies offer posters that can be used by libraries to publicize their services and their holdings but here, again, libraries can make use of professional talent. If the librarian has established good public relations in his community, it is often possible to interest the display man at the bank or the department store in doing an outside window about the library's services. Or, perhaps, a group of libraries in a given area could work together on a professional display that would stress the informational and reference services offered by all of the libraries. This could be circulated for display in places of business, county fairs, Grange meetings, conventions, and any place where it would be seen by a large number of people. By sharing costs of a professional display each contributing library stands to gain much more in the long view.

In summing up, the reference and information services in any kind of library can be made better known by adopting some of the methods and making use of the publicity media that are used so successfully by many other professions and particularly by business. There must be good public relations before there can be good publicity. The publicity must be honest at all times and must never create a demand that cannot be met, for this will only result in bad public relations.

By working with groups of all kinds a wider audience can be reached more effectively and more economically. By cooperating with groups and agencies of all kinds, the library--whether it be a public, private, or special library--can become a real center of culture and communication.

Anyone can learn to use accepted techniques for publicizing services by means of newspapers, radio and television, and display. Some libraries in smaller communities pool their talent and equipment to produce brochures, book lists, annoucements, and releases that can be used by all of the group. Still others, make use of the services of volunteers who have particular skills in this direction.

If good public relations are established in the area--it may

be community, university, college or company, depending on the kind of library--people in other fields can be relied on to help publicize the services and holdings of the library. There is no reason why a library should buy advertising space in papers or on radio or television. Hundreds of libraries in all sections of the country provide newspapers with materials for news and feature articles as well as columns, regularly, without cost. The same libraries make use of other publications, such as fraternal and social bulletins, gas and electric bill enclosures, house organs, and dozens of other outlets, without cost. This is also true of many display outlets and display materials, which are supplied free of charge by business and industry who have been "sold" on the library.

Any program designed to help publicize the information and reference services of a library takes time but careful planning and a working knowledge of techniques plus cooperation with other agencies and groups will not only cut the working time in half but also make the publicity more effective. If there is no working publicity program for the library at the present time why not begin to plan for an all-out effort that will culminate in the observance of National Library Week in March? The main objective should be to inform people, of all interests and ages, about the library's resources and services and to encourage people to make the maximum use of these resources and services. Remember, a library will grow in resources and influence only as its use increases.

References

1. American Library Association. Public Library Service; A Guide to Evaluation, with Minimum Standards. Chicago, The Association, 1956, p. 13.

THE REFERENCE SERVICES DIVISION OF THE AMERICAN LIBRARY ASSOCIATION

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To present this new Division to reference librarians and others interested in reference services is an opportunity that this writer welcomes with the greatest enthusiasm. The Reference Services Division is the fulfillment of a dream which has been in the minds of many reference librarians for a very long time. It is hard to imagine any group of people more zealous in their interest in the library profession and what it can mean to the general public, particularly as applied to the reference function, or a group more talented; yet, until the new Division was formed, they had no over-all meeting place of minds, where they could pool their ideas, discuss mutual problems, and make genuine contributions in the field. Since the founding of the American Library Association in 1876, a period of eighty-one years, reference librarians have more or less gone their several ways, making wonderful contributions, to be sure, as individuals, through publications, professional papers and articles, editing and compiling reference tools, administering units of reference service, and above all, that day-by-day aid to the library's clientele, which can never be adequately assessed or measured. No one can look back over the achievements of reference librarians without feeling a glow of pride. The following names, to mention only a few of the many which readily come to mind, may illustrate this point--Isadore Gilbert Mudge, Winifred Gregory, James I. Wyer, Margaret Hutchins, Pierce Butler, Edith Guerrier, Mabel Conat. One could list many others who, by writing or other work in the field, have made noteworthy contributions. Surely now, however, a new day is dawning with the new Division which will serve as a framework for producing ideas and carrying them out.

The great potentials of this Division will be enlarged upon later; but perhaps at this point it will be useful to give a brief background history of past organizational attempts of reference librarians, which culminated in the new Division. With this

historical foundation as a starting point, the writer will then try to explain the present organization, its management and complexities, and then will enlarge upon its potentials with special reference to the organization of reference librarians at the local level--a project of deep personal interest.

The nucleus of the new Division was formed by merging the old Reference Librarians Section of the Association of College and Reference Libraries with the Reference Librarians Section of the Public Libraries Division. The former section has had quite a long history. A.C.R.L. traces its history back to the old College and Reference Section of the American Library Association, which, under a slightly different name, was established in 1889. It seems quite likely that the genesis of this early affiliation of college and reference was rooted in the idea that scholarly library activities were largely carried on in college and university libraries. The fine work of special libraries was probably little heard of at that time, being in its infancy, and the scholarly work of many public libraries as "universities of the people" had probably not developed to anything like the point it has since reached. The discussion of reference work in public libraries, however, early became one of the objectives of the section. From 1931 on, it conducted general and round table meetings at the A.L.A. annual conferences, and one of these sub-sections or round tables was the Reference Librarians group. In 1938 the section was reorganized as A.C.R.L., and the reference librarians group continued as a section of that body, though many of the members had felt for a number of years and continued to feel, that it was an anomaly to have a type-of-activity group in a type-of-library division, since the membership embraced reference librarians from all kinds of libraries. Of the 756 members in March, 1948, 74 were from college libraries, 122 from university libraries, 242 from public libraries, 66 from reference libraries such as the Library of Congress and the Peabody Library, and 221 from special libraries. College and university librarians made up only about 25 per cent of the total. In other words, from the beginning this was a functional group, drawn from many types of libraries, but all interested in reference service as well as in all the bibliographical and scholarly activities of libraries. In January, 1949, at the A.L.A. Midwinter meeting, the section formally adopted a statement of function very similar to that of the new division which is given below. Because of this anomaly of a type-of-work section in a type-of-library division, there were recurrent demands for divisional status. Others proposed multiplying reference sections by setting up such

groups under the various type-of-library divisions, and one such additional group was organized in July,1952, as the Reference Section of P.L.D. During the period July,1952-December, 1955, the membership of both sections included librarians from various types of libraries and many reference librarians belonged to both. The sections worked together, through joint committees, on some matters.

At best this arrangement was a makeshift one, and a number of librarians felt that a happy solution would be a reorganization of A. L. A. in such a way that every member could belong, without payment of additional dues, to his type-of-library group and to his type-of-activity group, thus obviating any fear of division of loyalty and any sense of rivalry. When the A.L.A. Management Survey was published and accepted in principle by the Council, this hope became a reality. Before the Midwinter meeting in January, 1956, both sections worked out statements of area of responsibility, and a joint committee studied the two statements, which in spirit and in broad outline were almost identical, and drafted a statement which was accepted at a joint meeting of the two sections on February 2, 1956, and which later, with certain modifications, was accepted by the A. L. A. Council in June, 1957.

In December, 1956, the A. L. A. Executive Secretary, at the request of the President, called together an organizing committee composed of the chairmen of both the P. L. D. and the A. C. R. L. committees on divisional status, and several others from both groups, and a representative from the A.L.A. Bibliography Committee which was to become a part of the new Division. The organizing committee worked hard for two days, drawing up a constitution and by-laws for the new Division, planning for the interim organization, deciding on necessary committees, and the like. During the difficult seven-month interim period from December, 1956-June, 1957, Louis Shores served as chairman. During this time many minor points had to be ironed out, since every effort was being made by the A. L. A. and all those concerned, to make sure that the divisions were all as mutually exclusive as it was possible to be. Various committees and functions were shifted around so as to fall into the most logical division. R.S.D. took over not only the work of the two reference sections and all of the committees of each, but also several other A. L. A. and A. C. R. L. committees. During this period the organizing committee served the Division in place of a board of directors under the enthusiastic and forceful leadership of Mr. Shores. In Kansas City on June 26, 1957, the first officers of the new Division were installed.

Following this outline of the events which led up to the establishment of the Division, and before proceeding to what seems to be a most exciting vista--a look into present and future possibilities--a brief word about the organization as it now stands. Since it is a very new Division the members have had little opportunity for knowing about the structure of the Division. Because all of the activities, all of the future plans, all of the committees, must necessarily fall into the pattern of the new A. L. A. and must fall within the limits of the stated function, this statement, as approved by Council, June 25, 1957, will help to explain the Division's position:

> The Reference Services Division is interested in the improvement and extension of informational, bibliographical, and research activities in all types of libraries, at all levels and in every subject field; reference materials--their production, listing and evaluation; inquiries and inquirers--their identification, classification, and appraisal; indexes and indexing--their extension and improvement; bibliographies and bibliographic method--their place and development in scholarly investigations. R.S.D. has specific responsibility for:
>
> 1. Continuous study and review of reference performance in the different types of libraries
> 2. Conduct and sponsorship of activities and projects in reference services
> 3. Synthesis of reference activities of all units within A. L. A. and in the various types of libraries so as to produce a unified professional concept of the reference function
> 4. Representation and interpretation of reference services both within and without the library profession
> 5. Stimulation of the development of librarians engaged in reference services to more distinguished performance, and stimulation of librarians engaged in reference services to participation in appropriate type-of-library divisions
> 6. Planning and development of programs of study and research in reference services for the total profession.

To reach a full understanding of the potentials of the new Division, this statement bears reading and rereading. Before

looking into these alluring possibilities, however, a few more facts about the organizational pattern are necessary. It is one of the twelve divisions of the A. L. A. and falls into the functional or type-of-activity group. The officers consist of a president, first vice-president, and president-elect, second vice-president, and a secretary-treasurer, the latter elected for a two-year term. The membership as of August 26, 1957, was 2, 668, which makes it one of the major divisions and bears testimony to the need for such a group. This membership has arisen spontaneously because there has been no active membership drive. As the other divisions, it is hoped to have soon a leaflet telling something about the Division for the benefit of new members.

Much of the work necessarily has to be carried on by committees, of which there are seventeen to date; and one of these includes an active sub-committee. The committees fall into two groups: those concerned with the day-by-day management and running of the Division--the housekeeping end; and those concerned with the far-flung activities. In the first group are included the committees on Constitution and By-Laws; on Organization and Activities; on Local, State, and Regional Chapters; on Membership; and the Nominating and Election Committee. The committees concerned with the program of activities are the following: Bibliography (and this has a subcommittee on Hospital Library Bibliography), New Reference Tools, Inter-Library Loan, Recording and Evaluating Reference Materials, Wilson Indexes (appointed at the request of the H. W. Wilson Co.), a committee to plan and administer an appropriate annual award in memory of Isadore Gilbert Mudge, the Oberly Memorial Award Committee, Reference Work in Business and Technology, and the Public Library Reference Survey Committee. Finally, there are two committees which might classify in either category--the new Publication Committee which will attend to the placing for publication of papers presented at meetings, and other relevant contributions of the members, in journals or elsewhere, and the Conference Program Committee. This latter committee has a tremendous job and is reappointed for each annual conference. Some of the committees are ad hoc, having been set up to do a particular job and will be dismissed when the assignment is completed. Others, the majority, are standing committees. Unfortunately, space does not permit a detailed description of their duties but in some cases the title is self-explanatory. Some of these commmittees were inherited by the Division, two from A.L.A., two from A.C.R.L., two from P. L. D., and one was an A. C. R. L. and P. L. D. joint

committee. The remaining ten were set up to meet the present needs of R.S.D. Several committees are just getting their activities under way after the inevitable inactivity during the period of reorganization, but all have a useful and productive future ahead. It is much to be hoped that any members who have special interest in a particular committee will file their names, as vacancies frequently occur.

R.S.D. hopes to meet the needs of reference librarians not only through the work of the committees outlined above, but also through chapters and sections, and provision for both has been made in the Constitution and By-Laws. Chapters or groups of members in a certain area--local, state, or regional --will be covered later. Sections may be set up from time to time, and presumably would be based on specialized interests of reference librarians, such as reference work in a certain subject area. The Division also plans to meet the needs of members for professional growth and development through participation in skillfully planned conference programs.

No picture of the organization would be complete without reference to A.L.A. Headquarters services. A part-time executive secretary is now available to the Division. When the organizing committee first met, Samray Smith guided the work most helpfully, but almost immediately he became the new editor of the ALA Bulletin, and Cora Beatty, Chief of Membership Services, was assigned to the Division on a part-time basis. Miss Beatty's efficiency, intimate knowledge of the A.L.A. organization, and her enthusiasm for reference services and activities have made her a wonderful help to the Division, and already an indispensable part of the organization. Certainly the new President would have had a rough road to travel these first few months without her ready help and advice all along the way. One of the many advantages of this Headquarters help is the achievement of continuity, since officers come and go.

So much for the history and structure of the Division, which it must be remembered, is very young and has scarcely had time to tap the surface of its potentials. It is, however, as someone expressed it, a very lusty baby, and has a wonderfully productive future ahead. This hope is based not only on the fact that there is so much to be done in this area, but also on the quality of the membership. Perhaps one of the most obvious faults of reference librarians is a tendency to become so immersed in their individual tasks that they have not developed an esprit de corps. Now surely with this over-all organization they can develop just that. Many things can be achieved working together that could not be accomplished as individuals.

What then are some of the potentials of R.S.D. ? The collections of materials range from those in the smallest libraries to the great research collections, from the general collection, large or small, to the most minutely specialized one, and the clientele from the relative homogeneity of those served by the special library or the small college library, to the heterogeneity of those who use the facilities of the public library, serving as it does all ages and those of every degree of education, including graduate and undergraduate students and instructors. Despite this range and diversity of needs, services, and materials, there are many facets of the reference function that are common to all, many others that touch several if not all types of libraries. The Reference Services Division, recognizing the great value to be gained from a pooling of knowledge and discussion of mutual problems, should serve as a clearinghouse and coordinating agency in matters of reference service. Its influence and usefulness should reach out to every library in the country regardless of type or size--wherever staff members, whether designated reference librarians or not, are trying to bring together inquirers and the materials best fitted to meet their needs.

It should serve these librarians not only through its central office facilities at A. L. A. Headquarters but also through regional and local chapters, bringing programs and activities of a very practical nature within the reach of all those who have a part in the reference services of libraries. Through committee work it should carry on projects and serve in an advisory way in the many aspects of its field of responsibility. It should accommodate and plan for, both in meetings and in activities, those engaged in highly specialized reference service, those engaged in various scholarly and bibliographical pursuits, those interested particularly in reference work with certain age groups, such as reference work with students in school and public libraries, and for those engaged in the teaching of reference materials and techniques. All of these groups should be of concern to the Division on the local as well as the national level.

The Division's concern for an adequate reference apparatus should be reflected in its encouragement, through various channels including its own New Reference Tools Committee, of the publication of needed reference materials. This would also be evident in its interest in the evaluating and listing of reference materials for various purposes and on various levels.

Studies and investigations in the field of reference service are surely needed and the carrying out of such studies or the referral of such needs to library school faculty members or

other agencies, may well be fostered by the Division. Reference librarians are faced by innumerable problems, some of which should be feasible as subjects for study. A few such problems, chosen at random, may illustrate this point. How to make the clientele more fully aware of reference sources is something many reference librarians ask. Surely much more could be done to make these gold mines of knowledge known to the general public. Standards of reference service would be another field for study. Maintaining the quality of reference service in the libraries, in the face of rapid staff turnover and the necessary and worthy emphasis on new and equally important functions of today's libraries, is a problem that has caused concern to many. Reference librarians are well aware of the priceless build-up in the knowledge of a collection, whether it be specialized, general, or for a certain age group, which comes from long use by one of alert mind. How can anyone be expected to know any collection well when he leaves for another field or to work with a different kind of collection, after perhaps a year or less? Another problem which is certainly receiving study now is the better utilization of new techniques and new machines.

Articles and books on reference services are needed, of course, if the approach is fresh and the topic is now inadequately covered. To encourage such contributions is certainly a concern of R.S.D. It is a dream of some of the members that eventually there may be a journal of high caliber devoted specifically to articles in this field of interest, with a section for reviews of reference materials, and possibly a question and answer column, where librarians may ask for help on all kinds of problems connected with reference services as well as on specific inquiries from patrons.

This indicates only a few vistas of what the Division may be able to do now and in the future. In order to accomplish anything worth-while, it needs the talents and work of all those interested in reference services, and the best way for R.S.D. to find these librarians and for these librarians to find R.S.D. is through local groups. For this reason it is hoped that local groups of persons interested in reference service will spring up all over the country. It is hoped also that such groups, newly formed or already existing, will petition to become chapters of R.S.D. The requirements are simple and a committee has been set up to aid and advise local groups. Doris Wells, Head of the History and Literature Department of the Denver Public Library, is chairman. Letters of inquiry on this matter sent to the executive secretary or directly to Miss Wells

will receive immediate attention. According to the by-laws, state, regional, or local chapters may be established by the board of directors on the petition of a sufficient number of members of the R.S.D. resident in the territory within which the chapter is desired and according to the following regulations:

a. Each chapter may establish its own constitution and by-laws
b. Chapters may be discontinued by action of the board of directors of R.S.D.
c. At least one meeting shall be held each year, or every two years in the case of regional or other groups which normally hold biennial meetings.
d. Each chapter shall send a report of its meeting to the secretary-treasurer of the R.S.D. at least two months before the annual conference of the American Library Association.

In any case, local groups of librarians interested in reference services can be wonderfully stimulating and productive. Here are the ideal conditions for a profitable meeting of minds --the distances are small enough to make frequent attendance at meetings possible and to make it possible really to know one another. After all, a very small per cent of the librarians in a community are able to attend A.L.A. annual conventions. In these smaller areas, it is possible to pool one's knowledge, discuss mutual problems, work out solutions, put these solutions into immediate practice, encourage and interest young librarians and newcomers to the region, undertake cooperative projects, and develop talents. And what better place to discover unknown talents! Some A.L.A. divisions which have had regional groups have become aware of much unsuspected talent and ability this way. Local meetings can be stimulating, educational, and thoroughly enjoyable. They can broaden the outlook of the members and help each to understand the problems that confront the others. What a wonderful opportunity lies ahead in a community with school librarians, college and university librarians, public librarians, and special librarians, meeting together this way, with minds focused on this particular type of service and its many facets and complexities. There need be only two or three or four such meetings a year, but some of the papers presented before such groups have received national recognition through later publication. Also local scholars,

or other persons who are not librarians, may make notable contributions at such meetings and become thereby much more interested in the problems confronting reference librarians. Lastly, and this only skims the surface of possibilities, these groups can do a wonderful service to posterity by doing cooperative work on needed reference tools--e.g., compiling an index or a bibliography of some sort.

Regardless of affiliation with A.L.A. and R.S.D., these local groups of librarians interested in reference services can be fruitful to a high degree and can accomplish much, but there are distinct and overwhelming advantages to belonging to A.L.A. and R.S.D. When a group becomes a chapter, its members will be in touch with other groups organized locally and will know what these are doing. They will have all the advantages of A.L.A. and R.S.D. membership, including the Headquarters facilities, and will be in touch with all the other projects undertaken by the Division. R.S.D. in turn will profit greatly by this unearthing of talent and abilities all across the country, by finding worth-while papers and contributions for publication for the benefit of others, and in many other ways.

In conclusion, a great future lies ahead for this new Division and the potentials for practical and even scholarly attainments are high. Reference librarians can make significant contributions to the theory and practice of the reference function of libraries, and to the materials and apparatus which are their stock-in-trade.

SUMMARY

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The institute speakers, and the ensuing discussions, looked at reference work from four different approaches: the nature and spirit of reference service; its extension through effective public relations; its strengthening through greater knowledge of the materials and users; and its improvement through better organization and better selected and trained personnel.

As for the first, there was general acknowledgment of the role of the library as an information center, in which the reference service concept as developed in the United States plays a principal part. The reference librarian is recognized as the interpreter of the library's collections. To do this well calls for special talent and skill.

In the community constellation of institutions, organizations, and associations, the function of the library is to serve as a center of information. In any community there are many different "publics" with many different informational needs and demands. The individual library user probably belongs to several groups, e.g., he is a citizen, a father of a family, a businessman, and an amateur musician. His need for information may vary from details of a purely factual type as a date or address, to a question which requires the use of the library's whole resources on a certain subject and the borrowing of material not in the library. Among the publics which can be identified in any sizable community are groups concerned with its government, business, industry, labor, and transportation.

On the second approach, public relations was broadly defined as "a long term function which evaluates public attitudes and needs, which forms policies and procedures identified with those attitudes and needs, which explains problems and policies to both staff and public and develops programs and services which will earn public support and understanding." A salient point was made that everyone concerned with the library, from the members of the Board of Trustees down to the

youngest staff member, represents the institution to the public. Thus all should be fully informed as to its plans, policies, resources, and services. This means that internal communications must be strong; without such communications there can be no good internal public relations resulting in understanding, harmony, and peace. Unless internal relationships are satisfactory, relationships with the general public in the community will not be satisfactory.

Publicity was defined simply as the tool which can be used to tell the story of the library to the community. Fortunately, libraries can get good publicity without great cost if they are adroit. Much free publicity will be given by newspapers if library publicity agents are just and impartial toward all newspapers and willing to adapt their demands to the exigencies of the journalist's life. Display advertising for the library may be donated by public relations experts in banks, department stores, and other businesses. Radio and television work may be done by librarians if they are really competent performers but it is often better for the library to indicate what is wanted and allow experienced people to produce the show. Accuracy and truth in advertising are absolutely essential and the library must be especially careful never to create a demand which it cannot fill. Finally all librarians must constantly and soberly keep in mind the fact that good service is the best and least costly publicity.

A related aspect of public relations has to do with the costs of information service. Statistics of costs have a place in every municipal report and, in the form of evaluation of the service as an aid to individuals and as an exploitation of the library's resources, are considered good publicity to present to governing boards and the general tax-paying public. It was pointed out that cost studies are simply studies of cost and have nothing to do with the value of the service.

In considering whether reference service is worth what it costs, two important questions may be raised. First, how much would it cost to gain the information which reference work produces, if there were no such organized service; and second, how much more use is made of the collection to which the library has devoted a large proportion of its income, because of the personal aid provided by the reference staff? These are questions no one has attempted to answer, but they are suggestive of important studies which might be made in the future.

Thirdly, it was recognized that the selection of materials for reference service is an individual problem in every library

for in each community the character and distribution of the elements in the population differs from that in others as do the problems faced by each. Reference service must be based on a continuous survey of community needs on the one hand and on the other on a regular examination of the literature of all these subjects in order to select the materials which are clearly relevant to local problems. The basic facts and figures on the local economic situation in relation to that of the state, the nation, and the world at large must be readily available as this is of importance to all the library publics. At the same time the educational, religious, artistic, recreational, and scholarly institutions and associations of the community should likewise receive comparable consideration in book selection and reference service. As the speaker put it "the library must not only identify its public but be identified with it."

The primary importance of a knowledge of the community's population composition and of the community's problems in every field as a background for book selection and information service was brought out. Also, if the community needs are to be met, staff members and particularly reference staff members, should know as much about community affairs as does the chief librarian. The public library should be a prime source of local information of all sorts, historical, industrial, governmental, educational, and recreational. It is also well to involve as many local people in library service as possible --people of talent and specialized education who can help to answer unusual reference questions and give excellent advice on book selection in specialized fields.

The most distinctive characteristic of a good reference librarian, is his ability to select reference materials wisely and to use them skillfully and effectively. Thus the Planning Committee for the institute included a survey of recent reference books--those published since 1950--as an important part of the program. The papers and discussions brought a number of ideas concerning the nature of reference publications in each field and some discernible trends.

For example, considerable progress has been made in establishing bibliographic control over the literature of the social sciences in which the work of the International Committee on Social Science Documentation has been valuable. However, the pattern of publication of reference materials in the social sciences since 1950 has been irregular and out of balance; certain subjects and types predominate while others are neglected. Important additions to reference resources have been made in American history, international law and

international relations, and in statistics, especially on the international and comparative level. Yearbooks and atlases, bibliographies and guides to the literature of various subjects have been favorite types of publications. Though the pattern of publication is spotty many valuable works have appeared, and quickly proved their utility in reference departments.

In the humanities, many handbooks, guides, and companions have recently appeared. Many new yearbooks, religious reference books, language dictionaries of various types, and biographical dictionaries on English artists of various types have been published since 1950. On the other hand few new special or subject encyclopedias or dictionaries of outstanding importance have been issued during this period.

Three factors have affected reference work in the sciences since the end of the Second World War: a tremendous increase in the volume of literature, especially serials; increased use of foreign literature; and the emergence of new types of literature. The difficulties of literature-searching and the problem of bibliographic control of scientific publication are serious.

The research report, usually made by a company or research organization working under a contract, for a government agency, and classified as to secrecy, has presented many difficulties in scientific libraries since the beginning of the last world war. Though the problem still exists the appearance of several indexes supplementary to the U.S. Government Research Reports series, have greatly helped in the identification and location of such reports.

Two types of scientific publications, neither of which is exactly new, have appeared in greatly increased numbers of late--the guide to literature and the annual review. Excellent guides to the literature of chemistry, geology, biology, psychology, and medicine have been issued and have been thankfully received by special librarians and students. Annual reviews in many subject fields are useful as a starting point for bibliographical references on very recent topics.

Fourth, as for reference personnel the average reference assistant is a liberal arts college graduate with one crowded year of library training of which perhaps two to four semester courses bear directly on his reference work. Larger libraries require persons with special subject knowledge in the sciences, literature and art, for instance, but even these are usually inadequately prepared for the work. The question is, how can libraries improve the qualifications of their reference staffs so that they will be able to meet the demands with which their work confronts them?

The successful in-service training program at the University of Florida Library as described by the director of the program was a fruitful source of ideas. It was found that as every worker is an individual case where performance is measured against the requirements of his position or the position to which he may be expected to seek promotion, a choice of training methods must be made. These included guided experience, understudy methods, formal academic training, staff meetings, and staff conferences. Any training program to be successful must have the full support of the administration. The head of the reference department must consider in-service training a chief duty and be willing to devote adequate time to it. The staff must understand its purpose, and its goals must be definite and capable of realization. Each individual's program should be well suited to his needs and provision for periodical appraisal of progress should be made.

Reference librarians should be most carefully selected in order to secure persons of ability, people who have a large bump of intellectual curiosity and perseverance. It was shown, too, that they need to have the opportunity to examine and to study new sources and book selection aids when not actively engaged in public service. They need to be alert and amenable to change and new technology. For example, the importance of speed and convenience as elements in reference service and the use of modern means of communication, especially the telephone and teletype, were stressed.

Finally, two recent events have focussed the attention of librarians on the importance of the principle of cooperation in reference service, the first being the publication of the Public Library Standards of 1956 and the second, the formation of a Reference Services Division of the American Library Association to unify the work of several bodies formerly concerned with reference matters.

The conference discussion was concerned with organiztion on national and regional levels. The Standards actually consider the fully developed reference and circulation service of the large city systems, particularly those organized on the subject departmental plan, with regional and local branches, and extensive interloan systems, to be the ideal service which ought to be available to every citizen. The system idea can also be carried to all areas even rural through regional libraries centering around the largest city in a populous county or the public library of the largest reading center in a group of less populous counties. If this development can be accomplished only through legislation which must be based on a long process

of educating the public to see the library as more than a local institution, local libraries may well prepare for the future and secure many of the benefits of cooperative service by forming an association of reference staffs for mutual aid. Formal, statutory organization of the type desired may finally displace the informal cooperation which could be accomplished by our own initiative and effort.

On the national scale the new Reference Services Division is primarily interested in the improvement of reference service and its extension to all parts of the population now unserved or poorly served in this respect. It hopes to sponsor bibliographic and research activities and is interested in the education and training of reference librarians. Its broad program and well-considered goals should command the loyal support of all workers in the reference field and its large initial membership reflects the satisfaction of reference librarians in the establishment of such a division. It is indeed fortunate that at a time when the public libraries of the nation are setting up standards which involve a great expansion of reference service, a better organization of reference librarians should be available to inspire them and direct their efforts toward worthy goals.

In closing, the point was made that reference service is the ultimate library service since its object is to insure the meeting of the library patron with the materials or knowledge which the library is established to afford him, an attitude that has been held since the beginning of the modern concept of reference service. The papers and discussions at the institute were evidence that the leadership long displayed in the field of reference service by American libraries is to be maintained.